

**National Conference on
Emerging Trends in Sports Science for
Enhancing Sports Performances**

5th February 2025, Wednesday

Proceedings

Dr. S. Rameshkumar

Dr. G. Balasundar



**DEPARTMENT OF PHYSICAL EDUCATION
Sri Ramakrishna Mission Vidyalaya
College of Arts and Science**

(An Autonomous College, Affiliated to Bharathiar University, Coimbatore)

Re-accredited by NAAC with 'A+' Grade

SRKV Post, Periyanaickenpalayam, Coimbatore – 641 020

E-mail: srmvcasphs@gmail.com, Web: www.srmvcas.edu.in

**National Conference on
Emerging Trends in Sports Science for Enhancing Sports
Performances**

5th February 2025, Wednesday

Edited By

Dr. S. Ramesh Kumar

Director of Physical Education (SG)

Sri Ramakrishna Mission Vidyalaya College of Arts and Science

&

Dr. G. Balasundar

Head, Department of Physical Education

Sri Ramakrishna Mission Vidyalaya College of Arts and Science



DEPARTMENT OF PHYSICAL EDUCATION

SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF ARTS AND SCIENCE

**(An autonomous College Affiliated to Bharathiar University Re-Accredited by NAAC with
'A+' Grade)**

SRKV Post Periyanaickenpalayam, Coimbatore – 641 020 E mail: srmvcasphs@gmail.com,

Website: srmvcas.edu.in

Sri Ramakrishna Mission Vidyalaya College of Arts and Science

© Sri Ramakrishna Mission Vidyalaya, College of Arts and Science, SRKV Post,
Periyanaickenpalayam, Coimbatore, Tamil Nadu - 641 020

**NATIONAL CONFERENCE ON EMERGING TRENDS IN SPORTS SCIENCE
FOR ENHANCING SPORTS PERFORMANCES**

ISBN:



ISBN Number : 978-81-984557-1-0

No part of this publication may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owners.

DISCLAIMER

Content on this book is published by the authors and any query regarding this content please contact the corresponding author(s). Authors accept no liability for the content of this book, or for the consequences of any actions taken on the basis of the information provided, unless that information is subsequently confirmed in writing. Any views or opinions presented in this book are solely those of the author(s) and do not necessarily represent those of the authors.

Published by: International Journal of Innovative Research in Science, Engineering and Technology

Printed at: Sreekumaran Computers Printing Press,
Bharathiyar University,
Coimbatore, Tamil Nadu - 641 046.

EDITORIAL BOARD

Dr. M. Ashok Kumar, M.P.Ed., Ph.D.
Assistant Professor

Sri. V. Shanmugam, M.P.Ed., M.Phil., PGD in Yoga.
Assistant Professor

Sri. P. Natarajan, M.P.Ed., M.Phil.
Assistant Professor

Swami Garishthananda

Secretary

Ramakrishna Mission Vidyalaya Institutions

SRKV Post, Periyanaickenpalayam, Coimbatore 641 020

MESSAGE

It is a time delight for me to pen this foreword for the National Conference on **Emerging trends in Sports Science for Enhancing Sports Performances**, organized by Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.

Sports science acts as a linchpin for the advancement of athletic prowess by merging science, technology, and practical application to enhance the capabilities and performances of athletes. The theme of this conference accentuates the need to adopt innovative approaches, informed by evidence-based research and to empower our sports community to achieve new milestones.

By bringing together esteemed experts, researchers, and practitioners, this conference serves as a dynamic platform for sharing leading -edge knowledge and exploring advancements in sports science. It fosters a spirit of collaboration and sparks new ideas that can pave the way for transformative growth in the field.

Sri Ramakrishna Mission Vidyalaya College of Arts and Science has long been recognized for its dedication to academic and holistic excellence. This event further strengthens its contribution to the development of sports and allied sciences.

I am confident that the deliberations during this conference will provide valuable insights, inspire future research, and contribute to nurturing athletes capable of competing on the global arena. I congratulate the organizers, speakers, and participants for their exertion and dedication to this noble cause.

Wishing the conference, a grand success and may this create a meaningful impact on the future of sports science.

Place: Periyanaickenpalayam

Date : 05.02.2025

Yours in the service of the Lord



Secretary

Dr. T. Radha Krishnan

Professor and Head

Department of Physical Education Bharathiar University

Coimbatore -641046

MESSAGE


It gives me immense pleasure that the Department of Physical Education of Sri Ramakrishna Mission Vidyalaya College of Arts and Science is organizing a National Level Conference on **Emerging trends in Sports Science for Enhancing Sports Performances** in its campus. Sri Ramakrishna Mission Vidyalaya College of Arts and Science in itself is a niche of opportunities to all aspiring students and researchers. The conference offers a premise for students, Physical Educationists, Sports experts to gather and interact intensively on various topics relevant to the modern trends and innovative techniques which play significant role in performing and Excelling in high level sports competitions.

I hope, the eminent speakers will cover the theme from different perspectives which in turn will throw light on the development of emerging trends in sports. I am privileged to say that this conference will definitely offer suitable solutions to the issues to enhance the performance of sportsmen & Women across the Nation. The success of this Conference is solely on the dedication and efforts of innumerable people who started working on the preparations for the past few months in many ways to make this Conference become a reality. Eventually I express my special thanks and appreciation to all. I hope the Scientific sessions in this conference would be of greater benefit to the participants indeed. I wish all the best for its success.

Place: Periyanaickenpalayam

Date : 05.02.2025

With regards,



Professor and Head
Department of Physical Education
Bharathiar University
Coimbatore - 46

Dr. K. Kandappan

Secretary

Sri Ramakrishna Mission Vidyalaya College of Arts and Science

Coimbatore -641020

MESSAGE

Greetings!!

It brings me immense pleasure to share that the Department of Physical Education is organizing a one-day national conference titled **Emerging trends in Sports Science for Enhancing Sports Performances** on 5th February 2025. This event is a significant opportunity for us to convene and exchange knowledge, insights, and innovative ideas that will undoubtedly propel the field of sports science forward.

Our institution, Sri Ramakrishna Mission Vidyalaya College of Arts & Science, boasts a proud legacy of fostering academic excellence and holistic development. For over 61 years, we have been dedicated to shaping the minds and hearts of our students, guided by the ideals of Bhagavan Sri Ramakrishna, Swami Vivekananda, and Mahatma Gandhi. Our mission is to create a transformative educational experience that cultivates self-confidence, courage, strength, and integrity.

This conference is a testament to our unwavering commitment to promoting excellence in sports science. The diverse themes encompass Sports Science and Nutrition, Sports Coaching, Sports Medicine and Health, Sports Injuries and Rehabilitation, Health and Fitness, Sports Sociology, Modern Sports Technology, Sports Psychology, Sports Physiology, Sports Management, Advanced Sports Training Methods, and Yoga for Sports, reflect the comprehensive approach we take towards education and research in this field.

I extend my heartfelt greetings, appreciation, gratitude, and congratulations to the Head of the Department, resource persons, participants, faculty members, organizers, and students of the Department of Physical Education for organizing such a remarkable national conference. I wish the conference immense success and hope it provides all attendees with a fruitful and enriching experience.

With regards,

Place: Periyanaickenpalayam

Date: 05.02.2025


SECRETARY
SRI RAMAKRISHNA MISSION VIDYALAYA
COLLEGE OF ARTS AND SCIENCE
COIMBATORE-641020.

Sri Ramakrishna Mission Vidyalaya College of Arts and Science

Dr. A. Muthusamy

Principal

Sri Ramakrishna Mission Vidyalaya College of Arts and Science

Coimbatore -641020

MESSAGE

Physical Education and Sports activities are playing a crucial role in increasing the awareness among the youth. A well-implemented, comprehensive programme is an essential component for the growth of both mind and body. In the current scenario, updating the essential parameters in sports science is inevitable for physical education professionals.

With these thoughts the Department of Physical Education is organizing a National Conference on **Emerging trends in Sports Science for Enhancing Sports Performances** on 05th February 2025. I strongly hope that this premier gathering of physical education professionals will dedicate in exploring innovative approaches in emerging trends in sports science.

I congratulate the faculty members and research scholars with heartfelt of wishes for the success of this National Conference.

Place: Periyanaickenpalayam

Date: 05.02.2025

With regards,



Dr. A. MUTHUSAMY, M.Sc., M.Ed., M.Phil., Ph.D.,
Principal
Sri Ramakrishna Mission Vidyalaya
College of Arts and Science
Coimbatore - 641 020, Tamil Nadu

CONTENTS

S. No.	Title of the Paper & Author	Page No.
1	<p>EFFECT OF SURYANAMASKAR WITH KRIYA PRACTICES ON SELECTED MOTOR FITNESS COMPONENTS AMONG INTER COLLEGIATE KHO KHO MEN PLAYERS</p> <p><i>*R. Sivaraja., Research Scholar, St. Joseph College of Arts & Science, Vaikalipatti, Mettur, Tenkasi.</i></p> <p><i>**Dr. J. Karthikeyan., Assistant Professor, Department of Physical Education Health Education and Sports, The M.D.T. Hindu College, Pettai, Tirunelveli.</i></p>	1
2	<p>IMPACT OF LADDER TRAINING AND YOGIC PRACTICES ON SELECTED PHYSICAL FITNESS VARIABLES AMONG SCHOOL LEVEL FOOTBALL PLAYERS</p> <p><i>*Dr. V. Elavarasi., Director of Physical Education, Government Arts and Science College, Tittagudi, Cuddalore.</i></p>	2
3	<p>INFLUENCE OF COMBINED EFFECTS OF CORE STRENGTH AND SAQ TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG MALE SHORT DISTANCE RUNNERS</p> <p><i>*Varre Prabhukaruna., Research Scholar, Kongu Nadu Arts and Science College Coimbatore.</i></p> <p><i>** Dr. P. K. Kavithashri., Director of Physical Education, Kongu Nadu Arts and Science College Coimbatore.</i></p>	3
4	<p>EFFECT OF SPECIFIC TRAINING PROGRAMME ON SELECTED PHYSIOLOGICAL VARIABLES OF COLLEGE LEVEL VOLLEYBALL PLAYERS</p> <p><i>*Mr. K. Suresh., Research Scholar, Annamalai University, Chidambaram.</i></p> <p><i>**Dr. M. Kalimuthu., Associate Professor, Department of Physical Education, Annamalai University, Chidambaram.</i></p>	4
5	<p>INNOVATIVE APPLICATIONS OF WEARABLE TECHNOLOGIES IN VOLLEYBALL COMPETITIONS</p> <p><i>*Dr. G. Thangavel., Assistant Professor, School of Physical Education and Sports Science, Jeppiaar University, Chennai.</i></p> <p><i>**Dr. T. Sathees kumar., Assistant Director, Department of Physical Education, Dr. B. R. Ambedkar Institute of Technology, Port Blair, Andaman and Nicobar Islands (UT).</i></p>	5
6	<p>EFFECT OF INTERVAL TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG STATE MALLAKHAMB PERFORMERS.</p> <p><i>*Dr. K. Ambethkar., Assistant Professor, Cheran College of Physical Education, Karur.</i></p> <p><i>**Dr. D. Natarajan., Assistant Director, Department of Physical Education, Fisheries College and Research Institute, Dr. J. Jayalalithaa Fisheries University, Thoothukudi.</i></p>	6
7	<p>EFFECTS OF YOGASANAS AND MALLAKHAMB PRACTICES ON SELECTED PHYSICAL AND PHYSIOLOGICAL VARIABLE AMONG SCHOOL BOYS</p> <p><i>*Dr. D. Natarajan., Assistant Director, Department of Physical Education, Dr. J. Jayalalithaa Fisheries University, Thoothukudi.</i></p> <p><i>**Dr. K. Ambethkar., Assistant Professor, Cheran College of Physical Education, Karur.</i></p>	7
8	<p>OUTCOME OF HIGH INTENSITY COURSE TRAINING ON SELECTED PHYSIOLOGICAL VARIABLE OF MALE BADMINTON PLAYERS</p> <p><i>*Mr. S. Pragatheeswaran., Research Scholar, Madurai Kamaraj University, Madurai.</i></p> <p><i>**Dr. N. Rajasekar., Director of Physical Education, G.T.N, Arts College, Dindugul.</i></p>	8

S. No.	Title of the Paper & Author	Page No.
9	THE EFFECTS OF COMBINING FARTLEK TRAINING AND YOGIC PRACTICES ON PHYSICAL AND PHYSIOLOGICAL VARIABLES OF VOLLEYBALL PLAYERS. <i>*R. Perumal., Research Scholar, Madurai Kamaraj University, Madurai.</i>	9
10	IMPACT OF EXERCISE ON MENTAL HEALTH, PHYSICAL FITNESS AND PHYSIOLOGICAL PARAMETERS AMONG HEALTH SCIENCE STUDENTS <i>*V. Jayant Kumar., Assistant Professor, Department of Physical Education, Palakkad Institute of Medical Science, Walayar, Palakkad, Kerala.</i>	10
11	A STUDY ON THE EFFECTS OF PLYOMETRIC AND RESISTANCE TRAINING ON PHYSICAL FITNESS ATTRIBUTES OF COLLEGE MEN VOLLEYBALL PLAYERS <i>*A. Prabhakaran., Research Scholar, Navarasam Arts & Science College for Women, Arachalur, Erode.</i> <i>**Dr. K. Kavitha., Director of Physical Education, Navarasam Arts & Science College for Women, Arachalur, Erode.</i>	11
12	IMPACT OF PLYOMETRIC AND YOGIC TRAINING ON SELECTED MOTOR FITNESS PARAMETERS AMONG COLLEGE MEN VOLLEYBALL PLAYERS <i>*Mr. K. Senthil Kumar., Research Scholar, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.</i> <i>**Mr V. Shanmugam., Assistant Professor, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.</i> <i>*Mr. Dhanseelan Palanisamy., Research Scholar, Department of Physical Education, University of Kerala, Trivandrum.</i>	12
13	IMPACT OF AEROBIC POWER TRAINING ON THE DEVELOPMENT OF CARDIO RESPIRATORY ENDURANCE OF MALE INTER COLLEGIATE MEN PLAYERS <i>*P. Gopala Krishna., Research Scholar, Kongu Nadu Arts and Science College, Coimbatore.</i>	13
14	IMPACT OF AEROBIC TRAINING AND CIRCUIT TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG COLLEGE LEVEL FOOTBALL PLAYERS <i>*Reddi Gowru Naidu., Research Scholar, NGM College, Pollachi.</i> <i>**Dr. R. Ashok kumar., Research supervisor & Director of Physical Education, NGM College Pollachi.</i>	14
15	EFFECT OF CIRCUIT TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG POLYTECHNIC VOLLEYBALL PLAYERS <i>*S. Shanthy., Physical Director, Sakthi Polytechnic College, Sakthinagar, Erode.</i>	15
16	EFFECT OF PERSONALIZED SPRINT TRAINING ON BIOMOTOR VARIABLES IN MALE HANDBALL PLAYERS <i>*M. Sridhar, Research Scholar, Department of Physical Education, Kongu Arts and Science College, Erode.</i> <i>**Dr. A. Sankar, Director of Physical Education, Department of Physical Education, Kongu Arts and Science College, Erode.</i>	16
17	INFLUENCE OF YOGA PRACTICES ON KEY PHYSIOLOGICAL AND BIOCHEMICAL PARAMETERS IN DIABETIC PATIENTS <i>*R. Vaishnavi., Research Scholar, RVS College of Arts and Science, Coimbatore.</i> <i>**Dr. E. Sathya., Research Supervisor, Department of Physical Education, RVS College of Arts and Science, Coimbatore.</i>	17

S. No.	Title of the Paper & Author	Page No.
18	INFLUENCE OF UP HILL DOWN HILL TRAINING ON SELECTED CARDIOPULMONARY FITNESS VARIABLES AMONG LONG DISTANCE RUNNERS <i>*Maddena Gopi., Research Scholar, SRMV College of Arts and Science, Coimbatore.</i> <i>**Dr. G. Balasundar., Head of the Department of physical Education, SRMV College of Arts and Science, Coimbatore.</i>	18
19	THE ROLE OF STRENGTH TRAINING IN INJURY PREVENTION FOR YOUNG ATHLETES <i>*Mr. J. John Antony., Physical Education Teacher, Invictus International School, Phnom Penh Cambodia.</i> <i>**Dr. S. Karunanidhi., Director of Physical Education, Hindusthan college of Arts and Science, Coimbatore.</i>	19
20	EXPLORING THE EFFECT OF ECCENTRIC HIGH INTENSITY INTERVAL TRAINING AND GAME SPECIFIC TRAINING ON COORDINATIVE ABILITIES AMONG SCHOOL LEVEL HANDBALL PLAYERS <i>*Dr. P. Mohanavalli., Director of Physical Education, Government Arts and Science College, Thennangur, Vandavasi.</i>	20
21	SPRINT PERFORMANCE AND PHYSICAL VARIABLES ENHANCEMENT THROUGH LADDER AND PLYOMETRIC TRAINING IN MALE ENGINEERING ATHLETES <i>*Kamala Devi Pathuri., Research Scholar, Kongu Arts and Science College, Erode.</i> <i>**A. Sankar., Director of Physical Education, Kongu Arts and Science College, Erode.</i>	21
22	ENHANCING POWER PERFORMANCE THROUGH PLYOMETRIC AND TRADITIONAL TRAINING IN SCHOOL BASKETBALL PLAYERS <i>*S. Krishnamurthi., Research Scholar, RVS College of Arts and Science, Coimbatore.</i> <i>**Dr. E. Sathya., Director of Physical Education, RVS College of Arts and Science, Coimbatore.</i>	22
23	SPORTS MEDICINE PRACTICES AMONG ATHLETES AND NON-ATHLETES: AN ANALYTICAL APPROACH <i>*M. Harinaracim., Research Scholar, RVS College of Arts and Science, Coimbatore.</i> <i>**Dr. E. Sathya., Director of Physical Education, RVS College of Arts and Science, Coimbatore.</i>	23
24	FUNCTIONAL IMPROVEMENTS IN COLLEGE WOMEN THROUGH INTEGRATED YOGIC AND CROSS FIT TRAINING <i>*Dr. N. Kodeeswaran., Assistant Professor, SRMV Maruthi College of Physical Education, Coimbatore.</i> <i>**Dr. G. Meenatchi., Assistant Professor, Selvam College of Physical Education, Namakkal.</i>	24
25	ANALYZE THE LONG TERM BENEFITS OF BOTH TRAINING METHODS ON PHYSICAL PERFORMANCE IN SCHOOL LEVEL KABADDI ATHLETES <i>*Sri. N. Dinakaran., Research scholar, SRMV College of Arts and Science, Coimbatore.</i>	25
26	EFFECT OF TABA TRAINING ON SELECTED PHYSICAL AND PHYSIOLOGICAL VARIABLES OF SCHOOL LEVEL KABADDI PLAYERS <i>*Dr. K. Vellimalai, Director of Physical Education, SNS College of Engineering, Coimbatore.</i>	26

S. No.	Title of the Paper & Author	Page No.
27	<p>THE EFFECT OF TRX EXERCISE WITH THERA TUBE ON THROWING ABILITY AMONG INTER COLLEGIATE WOMEN BASKETBALL PLAYERS</p> <p><i>*P. Neelavathi, Research Scholar, PSGR Kirshnammal College for Women, Coimbatore.</i></p> <p><i>**Dr. M. Jayachira, Director of Physical Education, PSGR Kirshnammal college for women, Coimbatore.</i></p>	27
28	<p>IMPACT OF DIFFERENT TRAINING REGIMENS ON HIGH ALTITUDE PERFORMANCE IN SPECIFIC SOCCER SKILLS AMONG NILGIRIS PLAYERS</p> <p><i>*Mr R. Ravichandran., Research Scholar, SRMV College of Arts and Science, Coimbatore.</i></p> <p><i>**Dr. S. Rameshkumar., Director of Physical Education, SRMV College of Arts and Science, Coimbatore.</i></p>	28
29	<p>A STUDY ON THE EFFECTS OF SPECIFIC PERIODIZED AND TRADITIONAL TRAINING APPROACHES ON POWER VARIABLES AMONG FEMALE BASKETBALL PLAYERS</p> <p><i>*K. Dhayalan., Research Scholar, RVS College of Arts and Science College, Coimbatore.</i></p> <p><i>**Dr. E. Sathya., Director of Physical Education, RVS College of Arts and Science College, Coimbatore.</i></p>	29
30	<p>INFLUENCE OF CONTRAST TRAINING ON PHYSICAL PERFORMANCE VARIABLES AMONG HOCKEY PLAYERS</p> <p><i>* Dr. V. Balasubramanian., Head & Assistant Professor, Department of Physical Education, Sudharsan College of Arts and Science, Perumanadu, Pudukkottai.</i></p>	30
31	<p>IMPACT OF FUNCTIONAL ACTIVITY ON SELECTED HEALTH RELATED PHYSICAL FITNESS AND PHYSICAL FITNESS VARIABLES AMONG COLLEGE STUDENTS</p> <p><i>*Dr. G. T. Selvaganesh., Assistant Director, Department of Physical Education, Vellore Institute of Technology (VIT), Chennai.</i></p> <p><i>**Lt. PM. Balamurali., Deputy Director of Physical Education, Vellore Institute of Technology (VIT), Chennai.</i></p>	31
32	<p>SPEED, AGILITY AND QUICKNESS TRAINING: A REVIEW</p> <p><i>*Dr. R. Petchimuthu., Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.</i></p> <p><i>**Mr. M. Muthuarasan, Mr. S. Nagarajan & Ms. M. Sabiya., M.P.Ed., Student, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.</i></p>	32
33	<p>INFLUENCE OF CORE STABILITY EXERCISE ON CORE STRENGTH FLEXIBILITY AND CORE STRENGTH ENDURANCE AMONG KABADDI MEN</p> <p><i>*S. Dinesh Philip Vinoth., Scholar, St. John's College of Physical Education, Veeravanallur, Tirunelveli.</i></p> <p><i>**Dr. J. Karthikeyan., Assistant Professor, Dept. of Physical Education Health Education and Sports, The M.D.T. Hindu College, Pettai, Tirunelveli.</i></p>	33
34	<p>EFFECT OF MEDICINE BALL TRAINING ON CORE STRENGTH AMONG ADOLESCENTS</p> <p><i>*Dr. G. Kanagaraj., Assistant Professor, Department of Physical Education & Sports, Manonmaniam Sundaranar University, Tirunelveli.</i></p>	34

S. No.	Title of the Paper & Author	Page No.
35	EFFECT OF CIRCUIT TRAINING ON HEART RATE AMONG COLLEGE MEN ATHLETES <i>*Dr. P. Manikandan., Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.</i> <i>**Dr. M. Syed Ali., Director of Physical Education, Sadakathullah Appa College, Palayamkottai, Tirunelveli.</i>	35
36	APPLIED SPORT COACHING <i>*Dr. M. Sathish., Assistant Director, Department of Physical Education, Dr. MGR Fisheries College and Research Institute, Thanjavur.</i>	36
37	GRAPH THEORY AND AI: TRANSFORMING TEAM DYNAMICS AND STRATEGY OPTIMIZATION IN SPORTS <i>*Mr. B Prem Anand., Physical Director, IFET College of Engineering, IFET Nagar, Gangarampalayam, Villupuram.</i> <i>**Dr. J suresh., Director of Physical Education, KG College of Arts and Science, Saravanampatti, Coimbatore.</i>	37
38	IMPACT OF FUNCTIONAL FITNESS TRAINING WITH YOGIC PRACTICES ON SELECTED FUNCTIONAL VARIABLES OF COLLEGE WOMEN <i>*G. P. Jyothibrindha., Research Scholar, Tamil Nadu Physical Education and Sports University.</i> <i>**Dr. S. Jayakumar., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University.</i>	38
39	THE ROLE OF VARIED TRAINING CAPSULES IN ENHANCING SELECTED PHYSICAL CHARACTERISTICS AMONG COLLEGE WOMEN KABADDI PLAYERS <i>*Dr. G. Kalpana, Director of Physical Education, St. Joseph's College for Women, Tirupur.</i>	39
40	IMPACT OF SURYANAMASKAR WITH KRIYA PRACTICES ON SELECTED MOTOR FITNESS COMPONENTS AMONG INTER COLLEGIATE MALE ATHLETES <i>*Dr. S.V. Shivagumar., Director of Physical Education, Ambai Arts College, Ambasamudram, Tirunelveli.</i> <i>**Dr. R. Petchimuthu., Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.</i>	40
41	INDIVIDUALIZED EFFECT AND COMPARED EFFECT OF VARIOUS MUSCLE SPECIFIC RESISTANCE TRAINING ON SELECTED PHYSIOLOGICAL AND PSYCHOLOGICAL VARIABLES AMONG INTER-COLLEGIATE HOCKEY PLAYERS <i>*B. Suresh., Assistant Professor, Department of Physical Education, Aditya University, Surampalem, Andhra Pradesh.</i> <i>**N. Sankara Rao., Assistant Professor, Department of Physical Education, Aditya College of Engineering & Technology, Surampalem. Andhra Pradesh.</i> <i>***M. Tejeswara Rao., Assistant Professor, Department of Physical Education, Aditya University, Surampalem, Andhra Pradesh.</i>	41
42	EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES OF INTERCOLLEGIATE KABADDI PLAYERS <i>*Dr. N. Ravi., Head of the Department, Department of Physical Education, Aditya University, Surampalem, Andhra Pradesh.</i> <i>**Dr. Gawri Sankara Prasad., Principal, Sri Venkateswara College of Physical Education, Srikakulam, Andhra Pradesh.</i>	42

S. No.	Title of the Paper & Author	Page No.
43	COMPARATIVE ANALYSIS OF POSTURAL DEFORMITIES BETWEEN SCHOOL BOYS PARTICIPATING AND NON-PARTICIPATING IN SPORTS ACTIVITIES <i>*Dr. V. Vasudeva Rao., Sports Officer, IIT Madras, Chennai.</i>	43
44	THE PARENTAL ASSISTANCE IN RELATION TO PERSONALITY TRAITS AMONG WOMEN SPORTS PLAYERS <i>*Varanasi Janardhana., Research Scholar, Manonmaniam Sundaranar university, Tirunelveli.</i>	44
45	THE ROLE OF INTERVAL TRAINING IN ENHANCING FITNESS VARIABLES AMONG MALE FOOTBALL PLAYERS <i>*Dr. N. Savitha., Director of Physical Education, Chikkaiah Naicker College, Erode, Coimbatore.</i> <i>**Dr. A. Telma Priya., Physical Director, Thiagarajar College of Preceptors, Teppakulam, Madurai.</i>	45
46	INFLUENCE OF PLYOMETRIC AND TRADITIONAL TRAINING ON SELECTED POWER PERFORMANCE VARIABLE AMONG SCHOOL LEVEL HANDBALL PLAYERS <i>*R. Ranjith Rajesh., Research Scholar, Kongu Arts and Science College, Erode, Coimbatore.</i>	46
47	INVESTIGATE THE IMPACT OF REGULAR YOGIC PRACTICES ON ENHANCING FLEXIBILITY AND MUSCULAR STRENGTH <i>*Dr. S. Varalakshmy., Director of Physical Education Government Arts and Science College Thiruvannamallur.</i>	47
48	EFFECTS OF PRE SEASON STRENGTH TRAINING AND PLYOMETRIC TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES OF MALE INTER COLLEGIATE VOLLEYBALL PLAYERS <i>*Dr. V. Karthik Raja., Physical Director, Amrita School of Agricultural Sciences, Coimbatore.</i>	48
49	EXPLORING THE INFLUENCE OF HIGH-INTENSITY INTERVAL TRAINING ON PSYCHOPHYSIOLOGICAL ASPECTS OF COLLEGE LEVEL WOMEN PLAYERS <i>*Dr. Faiza Banu N., Director of Physical Education, JBAS College for Women, Chennai.</i> <i>**Dr. M. Jayachira, Director of Physical Education, PSGR Kirshnammal college for women, Coimbatore.</i>	49
50	EFFECTIVENESS OF RESISTANCE AND YOGA TRAINING ON SELECTED FITNESS VARIABLES AMONG COLLEGE LEVEL HOCKEY PLAYERS <i>*Dr. S. Mohan., Physical Director, Arulmigu Vaazhaithottathu Ayyan Temple School, Samalapuram, Tiruppur.</i> <i>Dr. A. Praveen Kumar, Asst. Professor in physical education, Vikrama Simhapuri University, Nellore. Andhra Pradesh.</i>	50
51	EFFECTS OF STRENGTH AND CIRCUIT TRAINING REGIMENS ON SCHOOL LEVEL FOOTBALL PLAYERS PHYSICAL AND PHYSIOLOGICAL DEVELOPMENT <i>*Potu Raju Muddada., Research Scholar, Kongu Nadu Arts and Science College, Coimbatore.</i> <i>**Dr. S. Saraboji., Principal Adithya College of Physical Education, Rajahmundry Andhra Pradesh.</i>	51
52	ASSESSING THE IMPACT OF STRENGTH AND PLYOMETRIC TRAINING ON PHYSICAL FITNESS VARIABLES IN COLLEGE VOLLEYBALL PLAYERS <i>*Boya Sreenivasulu., Research Scholar, Kongu Nadu Arts and Science College, Coimbatore.</i> <i>**Dr P.K Kavithashri., Director of Physical Education, Kongu Nadu Arts and Science College, Coimbatore.</i>	52

53	<p>THE INFLUENCE OF HIGH-INTENSITY INTERVAL AND PLYOMETRIC TRAINING ON MOTOR FITNESS AND PSYCHOLOGICAL OUTCOMES AMONG COLLEGIATE WOMEN PLAYERS</p> <p><i>*Mrs. M. Santhi., Research Scholar, Tamil Nadu, Physical Education and Sports University, Chennai.</i></p> <p><i>**Dr. C. Lakshmanan., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.</i></p>	53
54	<p>EFFECT OF SMALL-SIDED HANDBALL TRAINING ON SKILL RELATED PERFORMANCE VARIABLES OF JUNIOR MALE PLAYERS</p> <p><i>*Dr. S. Udhayakumar., Physical Director, Sri Ramaswamy Naidu Vidyalayam. Hr. Sec. School, Lakshminaickenpalayam.</i></p>	54
55	<p>EFFECTS OF CIRCUIT TRAINING ON PHYSICAL AND PHYSIOLOGICAL PARAMETERS IN INTER COLLEGIATE LEVEL VOLLEYBALL PLAYERS</p> <p><i>*Dr. N. Alavuthen Basha., Physical Director, Presidency University Yelahanka, Bangalore.</i></p>	55
56	<p>PLYOMETRIC AND CIRCUIT TRAINING EFFECTS ON SELECTED FOOTBALL SKILL PERFORMANCE VARIABLES</p> <p><i>*N. Dhinesh Raj., Research Scholar, Periyar University, Salem.</i></p> <p><i>**Dr. P. Senthilkumar., Director of Physical Education, Government Arts and Science College, Harur.</i></p> <p><i>***K. Venkatachalam., Director of Physical Education, Periyar University, Salem.</i></p>	56
57	<p>OPTIMIZING PHYSIOLOGICAL PERFORMANCE IN COLLEGE FOOTBALL PLAYERS THROUGH PLYOMETRIC, CORE, AND GAME SPECIFIC TRAINING</p> <p><i>*Dr. R. Anitha., Director of Physical Education, Periyar University, Constitution College of Arts and Science, Idappadi, Salem.</i></p>	57
58	<p>HARMONIZING WELL-BEING: THE TRANSFORMATIVE POWER OF NADA YOGA FOR WOMEN EMPLOYEES</p> <p><i>*Dr. S. Akilandeswari., Assistant Professor, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.</i></p> <p><i>**Dr. M. Mary Glory Ponrani., Assistant Professor, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.</i></p> <p><i>***P. Priyadharsni., Research Scholar, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.</i></p>	58
59	<p>IMPACT OF STRENGTH AND CONDITIONING TRAINING ON SELECTED PHYSICAL, PHYSIOLOGICAL AND PSYCHOMOTOR VARIABLES AMONG COLLEGE LEVEL FAST BOWLERS</p> <p><i>*Dr. R. Anandakumar, Physical Training Instructor, Govt. Arts College, Coimbatore, Coimbatore.</i></p>	59
60	<p>INFLUENCE OF CONTRAST TRAINING ON PHYSICAL AND PHYSIOLOGICAL PARAMETERS IN HOCKEY PLAYERS</p> <p><i>*K. Mohankumar., Research Scholar, Periyar University, Salem.</i></p> <p><i>**Dr. K. Venkatachalam., Director of Physical Education, Periyar University, Salem.</i></p>	60
61	<p>EFFECT OF SPECIFIC ENDURANCE CIRCUIT TRAINING ON AEROBIC CAPACITY AND HEART RATE OF MALE BASKETBALL PLAYERS</p> <p><i>*Dr. S. Thirumurugan., Director of Physical Education, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore.</i></p>	61

S. No.	Title of the Paper & Author	Page No.
62	INFLUENCE OF TABATA TRAINING ON BODY FAT PERCENTAGE AND MUSCLE MASS PERCENTAGE OF ADOLESCENT BOYS * <i>Surabhi Dharma Dheer.</i> , Research Scholar, SRMV Maruthi College of Physical Education, Coimbatore. ** <i>Dr. E. Amudhan.</i> , Associate Professor, SRMV Maruthi College of Physical Education, Coimbatore.	62
63	A STUDY OF EMERGING TRENDS IN SPORTS AND LAW IN TAMIL NADU STATE * <i>Dr. P. Selvakumar.</i> , Physical Director, University College of Engineering, Thirukkuvilai ** <i>Dr. S. Balasingh.</i> , Director of Physical Education, Saveetha Engineering College.	63
64	INFLUENCE OF FUNCTIONAL FITNESS TRAINING PROGRAM ON SELECTED BIO-MOTOR FITNESS PARAMETERS IN YOUTH GIRLS * <i>Mr. Arun PJ.</i> , Research scholar, Annamalai University, Chidambaram. ** <i>Ms. Nalini B.</i> , Research scholar, Annamalai University, Chidambaram. *** <i>Mr. Bibinlal BS.</i> , Assistant Professor, KE College, Mannanam.	64
65	EFFECT OF AEROBIC EXERCISE WITH AND WITH OUT WEIGHTS ON PHYSICAL FITNESS AND RESPIRATORY PARAMETERS ON UNTRAINED MALE FOOTBALL PLAYERS * <i>M. Naveen Kumar.</i> , Research Scholar, Annamalai University, Chidambaram. ** <i>Dr. K Krishnasamy.</i> , Assistant Professor, Department of Physical Education, Cuddalore.	65
66	THE ROLE AND ADVANCEMENTS OF SPORTS PSYCHOLOGY IN TAMILNADU * <i>B. Selvanesan.</i> , Assistant Professor, Department of Physical Education, St. Joseph's College (Arts & Science), Kovur, Chennai.	66
67	UNPACKING THE SIGNIFICANCE OF SPORTS SOCIOLOGY FOR YOUNG ATHLETES * <i>Ms. J. Mariya.</i> , Assistant Physical Director, Loyola College, Chennai.	67
68	SWISS BALL VS LADDER TRAINING INDIVIDUAL AND COMBINED EFFECTS ON MOTOR AND PHYSIOLOGICAL FITNESS IN RURAL SCHOOL BOYS * <i>Dr. V. Sureshkumar.</i> , Director of Physical Education, Mohamed Sathak Engineering College, Kilakarai, Ramanathapuram.	68
2.5	EXPLORING THE IMPACT OF DIFFERENT TRAINING REGIMENS ON EXPLOSIVE STRENGTH IN COLLEGE MALE SOCCER ATHLETES * <i>Dr. Devaraj N. D.</i> , Director and Head, Department of Physical Education, Christ Academy Institute for Advanced Studies Bangalore.	2.5
70	MAJOR ROLES OF SPORTS NUTRITION IN CRICKET ENHANCING PERFORMANCE AND RECOVERY * <i>Dr. P. Senthilkumar.</i> , Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore. ** <i>A. Vishal.</i> , I nd M.P.Ed Student, SRMV Maruthi College of Physical Education, Coimbatore.	70

S. No.	Title of the Paper & Author	Page No.
71	<p>ENHANCING CRICKET PERFORMANCE THROUGH KALARI TRAINING A HOLISTIC APPROACH TO BATTING BOWLING AND FIELDING</p> <p><i>*Dr. P. Senthilkumar., Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore.</i></p> <p><i>**S. Gohul Moorthi., 11nd M.P.Ed Student, SRMV Maruthi College of Physical Education, Coimbatore.</i></p>	71
72	<p>INJURY MANAGEMENT AND REHABILITATION STRATEGIES FOR PACE BOWLERS IN CRICKET A COMPREHENSIVE APPROACH</p> <p><i>*Dr. P. Senthilkumar., Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore.</i></p> <p><i>**Sri. M. Arul Sri Vignesh., 11nd M.P.Ed Student, SRMV Maruthi College of Physical Education, Coimbatore.</i></p>	72
73	<p>EFFECT OF HIGH INTENSITY INTERVAL AND GAME SPECIFIC TRAINING ON SKILL RELATED PERFORMANCE VARIABLE AMONG SCHOOL LEVEL HANDBALL PLAYERS</p> <p><i>*N. Ashok Kumar., Physical Director, Cheran Vidhyalaya Mat. Hr. Sec. School, Kalikkampatti, Dindigul.</i></p> <p><i>**Dr. A. Sankar., Director of Physical Education, Kongu Arts and Science College, Erode.</i></p>	73
74	<p>EXPLORING THE PLYOMETRIC AND FUNCTIONAL CORE TRAINING ON SELECTED PHYSICAL FITNESS AMONG MEN BASKETBALL PLAYERS</p> <p><i>*Dr. S. Joicsy., Director of Physical Education, Rathinam College of Arts and Science, Coimbatore.</i></p> <p><i>**Mr. S. Ramesh., Assistant Physical Director, Rathinam College of Arts and Science, Coimbatore.</i></p>	74
75	<p>EFFECTS OF VARIED TRAINING REGIMENS ON PHYSICAL FITNESS AND SKILL PERFORMANCE AMONG COLLEGE LEVEL MEN VOLLEYBALL PLAYERS</p> <p><i>*Dr. G. Mahalakshmi., Director of Physical Education, Government Arts and Science College, Tirupattur.</i></p>	75
76	<p>IMPACT OF VARIOUS YOGA AND KRIYA TRAINING PROGRAMS ON SELECTED PHYSIOLOGICAL VARIABLES AMONG COLLEGE LEVEL OBESE MEN</p> <p><i>*Mohan Babu., Research Scholar, Annamalai University, Chidambaram.</i></p> <p><i>**Dr S.Vijay., Assistant Professor, Department of Physical Education, Annamalai University, Chidambaram.</i></p>	76
77	<p>A STUDY ON YOGIC PRACTICES AND TABATA TRAINING ON SELECTED CORPORAL VARIABLES AMONG INTER COLLEGIATE MEN BASKETBALL PLAYERS</p> <p><i>*Dr. V. Mohana Surenth, Asst. Professor, Department of Physical Education, American College, Madurai.</i></p> <p><i>**Dr. S. Vijaya Kumari, Director of Physical Education, S.F.R College for Women, Sivakasi.</i></p>	77

S. No.	Title of the Paper & Author	Page No.
78	<p>OPTIMIZING PERFORMANCE IN PARA-ATHLETES INVESTIGATING UNIQUE TRAINING, NUTRITION, AND RECOVERY STRATEGIES TO ENHANCE PERFORMANCE IN ATHLETES WITH DISABILITIES IN DAKSHINA KANNADA</p> <p><i>*Mr. Anandavelu T M., Director of Physical Education, Yenepoya Institute of Arts, Science, Commerce and Management, Yenepya Deemed to be University, Mangalore.</i></p> <p><i>**Dr. Prasanna B K., Assistant Director, Department of Physical Education, Mangalore University, Mangalore.</i></p>	78
79	<p>EFFECT OF THERA BAND TRAININGS ON DYNAMIC SHOULDER STRENGTH AMONG ADOLESCENT VOLLEYBALL PLAYERS</p> <p><i>*Dr. M. Ramanathan., Assistant Professor, Department of Physical Education., American College, Madurai.</i></p>	79
80	<p>EFFECT OF WEIGHT TRAINING AND SPRINT TRAINING ON SELECTED MOTOR VARIABLES OF DISTRICT LEVEL MEN HANDBALL PLAYERS</p> <p><i>*Dr. P. Kala., Assistance Professor., Department of Physical Education., American College, Madurai.</i></p>	80
81	<p>MODERN TECHNOLOGIES IN ANALYZING SPORTS PERFORMANCE AN OVERVIEW</p> <p><i>*R. Ranjitham., Head & Director of Physical Education, K.M.G. College of Arts and Science, Gudiyattam, Vellore.</i></p> <p><i>**B. Gnanakumar., Director of Physical Education, K.M.G. College of Arts and Science, Gudiyattam, Vellore.</i></p> <p><i>***Dr. R. Balasubramani., Director of Physical Education, K.M.G. College of Arts and Science, Gudiyattam, Vellore.</i></p>	81
82	<p>INFLUENCE OF ASANAS AND COMBINATION OF ASANAS AND PRANAYAMA ON CARDIO RESPIRATORY ENDURANCE AMONG COLLEGE MEN</p> <p><i>*Dr. A. Sellaperumal., Director of Physical Education, R.K.M Vivekananda College, Chennai.</i></p>	82
83	<p>EFFECTS OF RECREATIONAL GAMES TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES OF SCHOOL STUDENTS</p> <p><i>*Dr. Shaik Meeravali, Principal, Siddhartha College of Physical Education, Ibrahimpatnam, Hyderabad.</i></p>	83
84	<p>EFFECTS OF SPECIFIC FOOTBALL DRILLS ON SELECTED PHYSICAL FITNESS AND SKILL PERFORMANCE VARIABLES FOR COLLEGE SOCCER PLAYERS</p> <p><i>*Mr. H. Aravindan., Director of Physical Education, Christ Academy Institute of Law, Bangalore.</i></p>	84
85	<p>ANKLE SPRAIN AND ITS REHABILITATION AMONG FOOTBALL PLAYERS</p> <p><i>*Mr. P. Natarajan., Research Scholar in Physical Education, SRMV College of Arts and Science, Coimbatore.</i></p> <p><i>**Dr. M. Ashokkumar., Assistant Professor., Department of Physical Education, SRMV College of Arts and Science, Coimbatore.</i></p> <p><i>*Mr. K. Thirukumaran., Ist - M. P. Ed Student, Cheran College of Physical Education, Punnam Chathiram, Karur.</i></p>	85

S. No.	Title of the Paper & Author	Page No.
86	<p>INVESTIGATION ON THE CHANGES ON MAXIMUM EXPIRATORY PRESSURE DUE TO YOGA THERAPY AMONG HYPERTENSIVE MEN</p> <p><i>*Dr. P. Chellappa., Assistant Professor, Dr. Sivanthi Adithanar, College of Physical Education, Tiruchendur.</i></p> <p><i>**Sri. A. Ganesan., Physical Director, SRMV Polytechnic College, Coimbatore.</i></p> <p><i>***Sri. V. Padmanabhan., Physical Trainer, PSG Technology, Peelamedu, Coimbatore.</i></p>	86
87	<p>THE EFFECT OF PRANAYAMA PRACTICES ON MENTAL HEALTH OF COLLEGE LEVEL MEN STUDENTS</p> <p><i>*Dr. V. Balamurugan, Assistant Professor, Maruti College of Physical Education, Coimbatore.</i></p>	87
88	<p>EFFECT OF YOGASANA AND PRANAYAMA ON SELECTED CARDIO-RESPIRATORY PARAMETERS OF MIDDLE AGED MEN</p> <p><i>*Dr. Suresh Dasi., Physical Director, St. Martin's Engineering College, Dhulapalley, Secunderabad - Ts.</i></p> <p><i>**Prof. P. P. S. Paul Kumar., Dean, Faculty of Physical Education, Yoga & Sports, Acharya Nagarjuna University, Andhra Pradesh.</i></p>	88
89	<p>A COMPARATIVE STUDY OF AEROBIC FITNESS AMONG CRICKETERS AND SOFT BALL PLAYERS OF TELANGANA STATE</p> <p><i>*J. Vijaya Kumar., Research Scholar, Palamuru University, Mahabub Nagar, Telangana.</i></p> <p><i>**L. B. Laxmikanth Rathod., Professor, Palamuru University, Mahabub Nagar, Telangana.</i></p>	89
90	<p>EFFECT OF PLYOMETRIC TRAINING ON SELECTED BIO MOTOR VARIABLES AMONG UNIVERSITY MALE BASKETBALL PLAYERS</p> <p><i>*Boram Parvathalu., Research Scholar, Palamuru University, Mahabub Nagar, Telangana.</i></p> <p><i>**L. B. Laxmikanth Rathod., Professor, Palamuru University, Mahabub Nagar, Telangana.</i></p>	90
91	<p>TRENDS IN SPORTS: TRAINING & COMPETITIVE ADVANTAGE</p> <p><i>*Dr. A. Needhiraja, Assistant Professor, SRMV Maruthi College of Physical Education, Coimbatore.</i></p> <p><i>**Dr. N. Senthil Kumar., Physical Director, SRMV Swami Shivananda Hr. Sec. School, Coimbatore.</i></p>	91
92	<p>IMPACT OF AEROBIC TRAINING AND YOGIC PRACTICES ON PHYSICAL FITNESS COMPONENT AMONG COLLEGE LEVEL SPORTS MEN</p> <p><i>*Dr. K. Tarmizhmaran., Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore.</i></p> <p><i>**Dr P. Manjupashpa., Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.</i></p>	92
93	<p>EFFECT OF AEROBICS EXERCISE ON SELECTED PHYSICAL VARIABLES AMONG SCHOOL MEN HOCKEY PLAYERS</p> <p><i>*Mr. M. Niraipandiyam., Assistant Professor, Department of Physical Education, Cheran College of Physical Education, Karur.</i></p> <p><i>**Dr. V. Amutha, Principal – Cum - Syndicate Member, Cheran College of Physical Education, Karur.</i></p>	93

S. No.	Title of the Paper & Author	Page No.
94	EFFECT OF TABLE TENNIS TRAINING WITH VIDEO FEEDBACK ON SELECTED SKILLS PERFORMANCE VARIABLES AMONG COLLEGE LEVEL BOYS <i>*Sridhar M., Research Scholar, SRMV Maruthi College of Physical Education, Coimbatore.</i> <i>**Dr. Srinivasan M., Assistant Professor, SRMV Maruthi College of Physical Education, Coimbatore.</i>	94
95	ROLE OF INDIGENOUS HERBS AND SPICES IN SPORTS PERFORMANCE A REVIEW <i>*Ms. K. Athira., Research Scholar, Department of Food Service Management and Dietetics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.</i> <i>**Dr. S. Uma Mageshwari., Professor, Department of Food Service Management and Dietetics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.</i>	95
96	IMPACT OF SAND TRAINING ON SELECTED PHYSICAL FITNESS AMONG INTER COLLEGIATE HANDBALL PLAYERS <i>*Dr. S. Velkumar., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.</i>	96
97	ANALYZING THE EFFECTS OF PLYOMETRIC TRAINING ON PHYSICAL PERFORMANCE IN MALE FOOTBALL ATHLETES <i>*Dr. S. Velkumar., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.</i> <i>**Dr. P. Muthuveera., **Assistant Professor, Department of Physical Education, Arul Anandar College, Karumathur, Madurai.</i>	97
98	COMPARITAVE STUDY ON SELECTED PHYSICAL FITNESS VARIABLES BETWEEN FORWARD AND POST BASKETBALL PLAYERS <i>*Dr. R. Mayildevi., Director of Physical Education, Government Arts and Science College, Kunrathur, Chennai.</i> <i>**Dr. S. Velkumr., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.</i>	98
99	INFLUENCE OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES OF MEN TENNIS PLAYERS <i>*P. Vijayakumar., Research Scholar, SRMV Maruthi College of Physical Education, Coimbatore.</i> <i>**Dr. E. Amudhan., Associate Professor, SRMV Maruthi College of Physical Education, Coimbatore.</i>	99
100	EFFECTS OF FARTLEK TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS OF COLLEGE LEVEL MEN PLAYERS <i>*Dr. S. Jeyaganesh., Assistant Professor, Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur.</i> <i>**Dr. S. Velkumr., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.</i>	100
101	EFFECT OF PROGRESSIVE INTERVEL TRAINING ON SPEED AND AGILITY AMONG HANDBALL PLAYERS <i>*Dr. M. Senthil Kumar., Director of Physical Education, JCT College of Arts and Science, Pichanur, Coimbatore.</i>	101

S. No.	Title of the Paper & Author	Page No.
102	<p>ENHANCING THE SPRINT SPEED AND KEY PERFORMANCE INDICATOS WITH CIRCUIT AND PLYOMETRIC TRAINING AMONG COLLEGE LEVEL ATHLETICS</p> <p><i>*Dr. C. Selvakannan., Director of Physical Education, Mount Zion College of Engineering and Technology, Pudukkottai.</i></p> <p><i>** Dr. R. Sathish Kumar, Director of Physical Education, SRM Madurai College for Engineer and Technology, Pottapalayam</i></p>	102
103	<p>ADVANCING SPORTS SCIENCE: THE IMPACT OF MODERN TECHNOLOGY ON PROFESSIONAL CAPABILITIES</p> <p><i>*Dr. A. Velayutham., Librarian, SRMV Maruthi College of Physical Education, Coimbatore.</i></p> <p><i>**Dr & Major. T. Magudeeswaran., Librarian (SG) & Head, Research Dept. of Library and Information Science, Chikkaiah Naicker College, Erode.</i></p>	103
104	<p>EMERGING NEW TRENDS IN SPORTS SCIENCE FOR PERFORMANCE</p> <p><i>*Dr. B. Arunprasath., Physical Education Teacher, T. A. T Kalanilayam Middle School, Coimbatore.</i></p> <p><i>**Sri. S. Saphthagiri., Physical Director, SRMV Swami Shivananda Hr. Sec. School, Coimbatore.</i></p>	104
105	<p>THE ROLE OF PODCASTS IN MODERN SPORTS TRAINING: A DIGITAL LEARNING APPROACH</p> <p><i>*Dr. N. Uma., Librarian, Justice Basheer Ahmed Sayeed College for Women, Chennai.</i></p> <p><i>**Dr. A. Velayutham., Librarian, SRMV Maruthi College of Physical Education Coimbatore.</i></p> <p><i>***Dr. & (Major) T. Magudeeswaran., Librarian (SG) & Head, Research Department of Library and Information Science, Chikkaiah Naicker College, Erode.</i></p>	105
106	<p>IMPACT OF PILATES TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS AMONG COLLEGE MEN BADMINTON PLAYERS</p> <p><i>*Dr. R. Arivazhagan., Teaching Assistant (PED), Dr. MSS Agriculture College and Research Institute, Thanjavur.</i></p> <p><i>**Dr. V. Vallimurugan., Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.</i></p>	106
107	<p>ROLE OF SPORTS PSYCHOLOGY IN SPORTS PERFORMANCE</p> <p><i>*Dr. S. Sivasankar, Director of Physical Education, SRMV College of Education, Coimbatore.</i></p> <p><i>**Dr. T. Kannappan, Physical Education Teacher, Government higher secondary school, Seripalayam, Coimbatore.</i></p> <p><i>**Dr. C. Selvaraj, Physical Education Teacher, Government high school, Kaikolapalayam, Erode.</i></p>	107
108	<p>ANALYSIS OF PROPRIOCEPTIVE REHABILITATION EXERCISE PROGRAMME ON RANGE OF MOTION IN KNEE INJURED PLAYERS</p> <p><i>*Mr. C. Prakash Raj., Research Scholar, Bharathiar University, Coimbatore.</i></p> <p><i>**Dr. T. Radhakrishnan., Professor and Head, Department of Physical Education, Bharathiar University, Coimbatore.</i></p>	108
109	<p>EFFECT OF CIRCUIT WEIGHT TRAINING ON SELECTED BIO MOTOR COMPONENTS AMONG COLLEGE MEN BADMINTON PLAYERS</p> <p><i>*Mr. G. Karthikeyan., Research Scholar, Bharathiar University, Coimbatore.</i></p> <p><i>**Dr. V. Vallimurugan., Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.</i></p>	109

S. No.	Title of the Paper & Author	Page No.
110	EFFECT OF JUMP ROPE TRAINING ON SELECTED PHYSICAL VARIABLE AMONG COLLEGE MEN HOCKEY PLAYERS * Mr. G. Muthukumar. , 1 st M.P.Ed, Cheran College of Physical Education, Karur. ** Mr. M. Pradeep. , 1 st M.P.Ed, Cheran College of Physical Education, Karur. *** Dr. V. Amutha. , Principal - Cum - Syndicate Member, Cheran College of Physical Education, Karur.	110
111	EFFECT OF SPECIFIC TRAINING ON SELECTED PHYSICAL VARIABLE AMONG COLLEGE MEN HANDBALL PLAYERS * Mr. K. Siva. , 1 st M.P.Ed, Cheran College of Physical Education, Karur. ** Dr. V. Amutha. , Principal – Cum - Syndicate Member, Cheran College of Physical Education, Karur.	111
112	EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES AMONG SCHOOL OBESE GIRLS STUDENTS * Mr. M. Robin Durai. , 1 st M.P.Ed, Cheran College of Physical Education, Karur. ** Mr. D. Kaliraj. , 1 st M.P.Ed, Cheran College of Physical Education, Karur. *** Dr. V. Amutha. , Principal – Cum - Syndicate Member, Cheran College of Physical Education, Karur.	112
113	IMPACT OF FUNCTIONAL STRENGTH TRAINING ON SELECTED PHYSICAL VARIABLES AMONG YOUNG ATHLETES * S. Selvaganapathy. , Research Scholar, D. B. Jain College, Thoraipakkam, Chennai. ** Dr. R. Desingurajan. , Director of Physical Education, D. B. Jain College, Thoraipakkam, Chennai.	113
114	EFFECT OF PLYOMETRIC TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS AND BODY COMPOSITION AMONG BASKETBALL PLAYERS * Dr. J. Suresh. , Director of Physical Education, KG College of Arts and Science, Coimbatore ** M. Vivek. , Research Scholar, Bharathiar University, Coimbatore *** U. Jeeva. , Physical trainer, Hindustan College Arts and Science, Coimbatore.	114
115	EFFECT OF TABATA TRAINING ON SELECTED HEALTH RELATED PARAMETERS OF SCHOOL GIRLS BASKETBALL PLAYERS * P. Kaviyarasi. , Research Scholar, Bharathiar University, Coimbatore. ** K. R. Jeevan. , Research Scholar, Bharathiar University, Coimbatore. *** Dr. P. Manju Pushpa. , Assistant Professor, Bharathiar University, Coimbatore.	115
116	IMPACT OF CIRCUIT TRAINING ON HOCKEY PLAYERS EXPLOSIVE POWER * Dr. V. Saminathan. , Assistant Professor, SRMV Maruthi College of Physical Education, Coimbatore. ** G. Mouliswaran. , Research Scholar, SRMV Maruthi College of Physical Education, Coimbatore.	116
117	EFFECT OF THE SPECIFIC DRILLS UNDERLYING FUNDAMENTAL SKILLS OF VOLLEYBALL BETWEEN THE STUDENTS IMPROVING IN THE SELECTED COORDINATIVE ABILITIES BETWEEN THE MODERATE LEVEL AND HIGH LEVEL OF FITNESS * Dr. S.T.N. Rajeswaran. , Professor and Director i/c, Department of physical Education, Bharathiar University, Coimbatore. ** T. A. Manivannan & S. Dharani. , Research Scholar, Bharathiar University, Coimbatore. *** Dr. P. Sridar. , Director of Physical Education, School of Distance Education, Bharathiar University, Coimbatore.	117

S. No.	Title of the Paper & Author	Page No.
118	EFFECT OF ZUMBA AND AEROBICS ON SELECTED PHYSIOLOGICAL BODY COMPOSITION AND FITNESS VARIABLES SCHOOL GIRLS <i>*M. Murugan., Research Scholar, Physical Director KGISL, Coimbatore.</i> <i>*Dr. J. Suresh., Department of Physical Education KG College of Arts and Science, Coimbatore.</i> <i>*Dr. M. Manogaran., Department of Physical Education, PPG College of Arts and Science, Coimbatore.</i>	118
119	ASSESS THE ROLE OF SKILL - FOCUSED TRAINING VERSUS FITNESS-FOCUSED TRAINING ON OVERALL PHYSICAL FITNESS IN BASKETBALL PLAYERS <i>*Mr. C. Dellus., Research Scholar, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.</i>	119
120	INVESTIGATION ON THE CHANGES OF TIDAL VOLUME DUE TO DIFFERENT INTENSITIES OF CARDIAC CIRCUIT EXERCISES AMONG OBESE MALE STUDENTS <i>*Dr. K. Balamurugan., Assistant Professor and Head, Department of Physical Education, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.</i> <i>**Dr. V. Surya., Sports Physiotherapist, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.</i>	120
121	INFLUENCE OF SPECIFIC FITNESS TRAINING ON AGILITY AND STRENGTH ENDURANCE OF COLLEGE MEN CRICKET BEGINNER'S <i>*Dr. M. Ramajayam., Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, Sri Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore.</i> <i>**Dr. K. Ketheeswaran., Senior Lecturer, Sports Science Unit, University of Jaffna, Sri Lanka.</i>	121
122	COMPARISON OF SPEED AND FLEXIBILITY BETWEEN HANDBALL AND VOLLEYBALL PLAYERS Sri Ramakrishna Mission Vidyalaya College of Arts and Science <i>*Dr. P. Selvakumar., Physical Director, University College of Engineering, Thirukkuvilai, Nagapattinm, Tamilnadu, India.</i>	122
123	THE ANATOMY OF ANKLE INJURIES: PREVENTION, TREATMENT AND REHABILITATION STRATEGIES <i>*R. Chidambaram, Santhosh & S. P. Aruneswaran., IInd B.P. Ed, Faculty of General and Adapted Physical Education & Yoga, RKMVERI, Coimbatore.</i> <i>**Dr. S. Sakhivel, Assistant Professor, Faculty of General and Adapted Physical Education & Yoga, RKMVERI, Coimbatore.</i>	123
124	IMPACT OF HIGH INTENSITY EXERCISE ON LIPID PROFILES IN YOUNG COLLEGE MEN <i>*Dr. T. Thangamani., Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore.</i>	124

S. No.	Title of the Paper & Author	Page No.
125	<p>EFFECT OF PNF STRETCHING ON SELECTED MOTOR FITNESS COMPONENTS AMONG INTER - COLLEGIATE LEVEL FIELD HOCKEY PLAYERS</p> <p><i>*Dr. V. Saminathan., Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.</i></p> <p><i>**S. Nagaraj., M.P.Ed Student, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.</i></p>	125
126	<p>COMPARISON OF CARDIO-RESPIRATORY ENDURANCE BETWEEN INTER-UNIVERSITY FOOTBALL AND FIELD HOCKEY PLAYERS</p> <p><i>*Mr. J. Thanveer Nishath, Mr. P. Ajaykannan and Mr. M. Hem Ajay., IInd B.P. Ed Students, Faculty of General and Adapted Physical Education & Yoga, RKMVERI, Coimbatore.</i></p>	126
127	<p>INVESTIGATION OF THE CHANGES ON STRESS AND SELF - CONFIDENCE DUE TO AEROBIC EXERCISES AND YOGIC PRACTICES ON AMONG MALE KABADDI PLAYERS</p> <p><i>*Mr. R. Sudhakar., Research Scholar, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.</i></p> <p><i>**Dr. M. Krishnamoorthi., Director of Physical Education, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.</i></p>	127
128	<p>INVESTIGATION OF THE CHANGES ON STRESS AND ANXIETY OF CIRCUIT TRAINING AND YOGIC PRACTICES AMONG MALE CRICKET PLAYERS</p> <p><i>*Mr. S. Shanmuga Priyan., Assistant Physical Director, Department of Physical Education, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.</i></p> <p><i>**Dr. M. Krishnamoorthi., Physical Director, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.</i></p>	128
129	<p>IMPACT OF SOCCER DRILLS TRAINING ON DRIBBLING AND SHOOTING OF SCHOOL LEVEL FOOTBALL PLAYERS</p> <p><i>*R. Prakash & K. Sanjai., M.P.Ed Students., Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore.</i></p> <p><i>**Dr. M. Ramajayam., Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore.</i></p>	129
130	<p>COMPARATIVE IMPACT OF SEPARATE AND INTEGRATED STRENGTH AND YOGA TRAINING ON PHYSICAL AND PHYSIOLOGICAL METRICS OF COLLEGE LEVEL CRICKET PLAYERS</p> <p><i>*S. Lakshmanan, Research Scholar, Navarasam Arts & Science College for Women, Arachalur, Erode, Tamil Nadu, India.</i></p> <p><i>**Dr. K. Kavitha, Director of Physical Education, Navarasam Arts & Science College for Women, Arachalur, Erode, Tamil Nadu, India.</i></p>	130

S. No.	Title of the Paper & Author	Page No.
131	<p>IMPACT OF PLYOMETRIC TRAINING ON OXIDATIVE AND NON-OXIDATIVE POWER AMONG WOMEN STUDENTS</p> <p><i>*Y. Deenadhayalan., Research Scholar, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu.</i></p> <p><i>**E. Anburaj., Research Scholar, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu.</i></p> <p><i>***Dr. S. Velkumar., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu.</i></p>	131
132	<p>IMPACT OF SPORTS ELECTIVE PARTICIPATION ON SOCIAL WELL-BEING IN STUDENTS</p> <p><i>*Dr. P. Nandhini., Assistant Director, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.</i></p>	132
133	<p>EFFECT OF PILATES EXERCISES ON SELECTED PHYSICAL FITNESS VARIABLES AMONG COLLEGE LEVEL VOLLEYBALL PLAYERS</p> <p><i>*C. Hanny Lindha., Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.</i></p> <p><i>**Dr. V. Vallimurugan., Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.</i></p>	133
134	<p>TRANSITION TO ATTACK OUTCOMES ON PERFORMANCE OF SOCCER PLAYERS</p> <p><i>*J. Robin Raja., Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.</i></p> <p><i>**C. Susindran., Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.</i></p>	134
135	<p>EXAMINING PHYSIOLOGICAL CHARACTERISTICS IN ATHLETES WITH DIFFERENT LEVELS OF HEARING IMPAIRMENT</p> <p><i>*K. Maruthamuthu., Research Scholar, Faculty of General & Adapted Physical Education and Yoga, RKMVERI, Coimbatore.</i></p> <p><i>**Dr. R. Giridharan., Associate Professor and Head, Faculty of General & Adapted Physical Education and Yoga, RKMVERI, Coimbatore.</i></p>	135
136	<p>REVOLUTIONIZING CRICKET OFFICIATING: THE IMPACT OF TECHNOLOGY</p> <p><i>*Iraianbu., M. P. Ed Student, Faculty of General & Adapted Physical Education and Yoga RKMVERI, Coimbatore.</i></p> <p><i>**Dr. M. Ramajayam., Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, RKMVERI, Coimbatore.</i></p>	136

EFFECT OF SURYANAMASKAR WITH KRIYA PRACTICES ON SELECTED MOTOR FITNESS COMPONENTS AMONG INTER COLLEGIATE KHO KHO MEN PLAYERS

***R. Sivaraja.**, Research Scholar, St. Joseph College of Arts & Science, Vaikalipatti, Mettur, Tenkasi.

****Dr. J. Karthikeyan.**, Assistant Professor, Department of Physical Education Health Education and Sports, The M.D.T. Hindu College, Pettai, Tirunelveli.

ABSTRACT

Yoga is one of the most powerful drugless system of treatment. It is having its own concept of wellness which has been scientifically understood and presented by many. Yoga can be adopted as lifestyle for promoting our physical and mental health. Yoga, if introduced at the school level, would help to inculcate healthy habits and lifestyle to achieve good health. The aim of yoga thus, at the school level, is to encourage a positive and healthy lifestyle for physical, mental and emotional health of children. Yoga helps in the development of strength, stamina, endurance and high energy at physical level. It also empowers oneself with increased concentration, calm, peace and contentment at mental level leading to inner and outer harmony. Yogic kriya remove the waste materials of our internal organs which are not expelled normally. Therefore, the aims of Hatha Yoga and of the Shatkriyas are to cleanse the internal organs and thereby create harmony between the major pranic flows, Ida and pingala, and attaining physical and mental purification and balance. The purpose of the study was to Effect of Suryanamaskar with Kriya Practices on Selected Motor Fitness Components among Inter Collegiate Kho Kho men players, a total of 20 students from St. Joseph College of Arts & Science, Vaikalipatti, Mettur, Tenkasi were selected as subjects and their Age ranged between 20-23 years. They were divided into experimental and control group randomly, after the pre-and post-test the subject (N-20) was randomly assigned into two equal groups of 10 athletes each. The group were assigned as experimental group and control group. The experimental group underwent suryanamaskar with kriya practice for a period of eight weeks. The post tests were conducted on the above said variables. The training programme was schedule as 6.00 am-7.00am for three alternative days in a week, the data collected from the two group namely suryanamaskar with kriya practices group and control group on selected motor components were statistically analyzed by using T ratio in order to determinate the difference if any among the group at pre-post-test. The calculated T ratio is tested for significant at 0.05 level of confident, Suryanamaskar with kriya practice had significantly developed the speed, agility, flexibility, balance of the inter collegiate men Kho Kho players.

Key Words: Suryanamaskar, Kriya, Motor fitness.

IMPACT OF LADDER TRAINING AND YOGIC PRACTICES ON SELECTED PHYSICAL FITNESS VARIABLES AMONG SCHOOL LEVEL FOOTBALL PLAYERS

* **Dr. V. Elavarasi.**, Director of Physical Education, Government Arts and Science College, Tittagudi, Cuddalore.

ABSTRACT

Soccer, also known as football in most parts of the world, is a globally popular sport that involves two teams of eleven players competing to score goals by getting a ball into the opposing team's net. Played on a rectangular field with a goal at each end, it requires a combination of skill, strategy, teamwork, and endurance. Yogic practices encompass a wide range of physical, mental, and spiritual disciplines aimed at achieving harmony between the body, mind, and soul. Rooted in ancient Indian traditions, these practices include asanas (postures), pranayama (breathing exercises), meditation, and ethical guidelines, all designed to promote physical health, mental clarity, and emotional balance. Ladder training is a form of exercise designed to enhance speed, coordination, balance, and quick foot movements. By performing various drills on a ladder placed on the ground, athletes develop better body control, improve reflexes, and increase their ability to change direction rapidly. The purpose of the study was to find out the impact of ladder training and yogic practices on selected physical fitness variables among school level football players. Forty-five school soccer players studying from Tittagudi Government Higher Secondary School, Cuddalore Tamil Nadu, India were selected randomly as subjects. The age of the subjects ranged from 14 to 17 years. The selected subjects were divided into three groups. Group I underwent ladder training, Group II underwent yogic practices and Group III acted as control. The experimental groups were subjected to the ladder training and yogic practices for alternative three days for six weeks. The ladder training and yogic practices was selected as independent variable and the criterion variables explosive power and speed were selected as dependent variables and the selected dependent variables were assessed by the standardized test items. The data were analysed statistically by using analysis of covariance (ANCOVA). Whenever the 'F'ratio for adjusted post-test means was found to be significant, Scheffe's test was followed as a post hoc test to determine which of the paired means difference was significant. Based on mean difference, improved performance in explosive power and speed was observed after twelve weeks of different training programme.

Keywords: - Ladder Training, Yogic Practices, Explosive power and speed.

INFLUENCE OF COMBINED EFFECTS OF CORE STRENGTH AND SAQ TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG MALE SHORT DISTANCE RUNNERS

***Varre Prabhukaruna.,** Research Scholar, Kongu Nadu Arts and Science College Coimbatore, Tamil Nadu.

**** Dr. P. K. Kavitha shri.,** Director of Physical Education, Kongu Nadu Arts and Science College Coimbatore, Tamil Nadu.

ABSTRACT

Training is a procedure of construction of some task. "Sports training is a coaching process, based on scientific principles, aiming at preparing sportsperson for higher performances in sports competition. Sports' training is a scientifically based and systematically organized process which through a planned and scientific effect on the performance ability and performance readiness aims at sports perfection and performance improvement as well as the contest in sports competition. Core improves the qualities of strength training stability and balance. The purpose of study was designed to find out the isolated and combined effects of core strength and SAQ training on selected physical fitness and physiological variables among male short distance runners. For this purpose, 40 students were selected as subjects from Adikavi Nannayya University in intercollegiate tournaments in Andhra Pradesh by applying random sampling method. The age of the subjects ranged from 18 to 25 years. This study, 40 male short distance runners were randomly selected from Adikavi Nannayya University in intercollegiate tournaments in Andhra Pradesh. The selected subjects were divided into 4 equal groups. Group-1 was core strength training group, group-2 was SAQ training, group-3 was combined core strength and SAQ training group and group-4 was the control group. The following standard variables were selected for the study such as physical fitness variables were flexibility. The training period was 14 weeks 3 alternate days per week, one and a half-hour in the evening session. For the pre and post-test randomized control group design was followed for this study. The collected data were statistically analysed to check whether any significant difference exists. This will be done by applying the dependent 't' test, analysis of covariance (ANCOVA) and Scheffe's post hoc test. The level of significance was fixed at 0.05 level.

Keyword: Core strength training, SAQ training and flexibility

EFFECT OF SPECIFIC TRAINING PROGRAMME ON SELECTED PHYSIOLOGICAL VARIABLES OF COLLEGE LEVEL VOLLEYBALL PLAYERS

***Mr. K. Suresh.,** Research Scholar, Department of Physical Education, Annamalai University, Chidambaram, Tamil Nadu.

****Dr. M. Kalimuthu.,** Associate Professor, Department of Physical Education, Annamalai University, Chidambaram, Tamil Nadu.

ABSTRACT

A sport is an organized, competitive, and skillful physical activity requiring commitment and fair play. It is governed by a set of rules or customs. In a sport the key factors are the physical capabilities and skills of the competitor when determining the outcome (winning or losing). The physical activity involves the movement of people, animals and/or a variety of objects such as balls and machines. In contrast, games such as card games and board games, though these could be called mind sports, require only mental skills. Non-competitive activities such as jogging and rock-climbing are usually classified as recreations. A sport is an organized, competitive, and skillful physical activity requiring commitment and fair play. It is governed by a set of rules or customs. In a sport the key factors are the physical capabilities and skills of the competitor when determining the outcome (winning or losing). The physical activity involves the movement of people, animals and/or a variety of objects such as balls and machines. In contrast, games such as card games and board games, though these could be called mind sports, require only mental skills. Non-competitive activities such as jogging and rock-climbing are usually classified as recreations. The purpose of the study was to investigate that the effect of specific training programme on selected physiological variables of college level volleyball players. To achieve the purpose of the study, sixty (n=30) male school level Volleyball players will be selected from the various Colleges in and around Chittoor district, Andhra Pradesh. The subjects were divided into groups such as experimental and control group. The experimental group was asked to take part in specific training for eight weeks. After consulting experts in the field and also going through the available literature on the subject the following Physiological variables were selected for this study. Physiological variable blood pressure and pulse rate. The analysis of data revealed that the training programme showed significant changes in some selected variables in blood pressure and pulse rate due to eight weeks of training programme for special training.

Keywords: *Blood pressure and pulse rate.*

INNOVATIVE APPLICATIONS OF WEARABLE TECHNOLOGIES IN VOLLEYBALL COMPETITIONS

***Dr. G. Thangavel.,** Assistant Professor, School of Physical Education and Sports Science, Jeppiaar University, Chennai.

****Dr. T. Sathees kumar.,** Assistant Director, Department of Physical Education, Dr. B. R. Ambedkar Institute of Technology, Port Blair, Andaman and Nicobar Islands (UT).

ABSTRACT

One of the most significant applications of wearable technologies in volleyball is performance monitoring. Devices such as smartwatches, fitness bands, and specialized sensors can track key metrics, including, Heart rate and cardiovascular performance, Jump height and frequency, Acceleration and movement patterns, Muscle activity and fatigue levels. These data points provide valuable insights for athletes and coaches, enabling tailored training programs to address individual strengths and weaknesses. For instance, wearable devices can help identify trends in player performance during matches, allowing for real-time adjustments in tactics and rotations. Data collected from wearable devices also aids in developing more effective team strategies, Performance Analytics, Aggregated data from all players offer coaches a detailed understanding of team dynamics and individual contributions. Opponent Analysis, Wearable technology can be used to analyze opposing teams' strategies, helping teams adapt their gameplay accordingly. Real-Time Adjustments, some devices enable real-time communication of data to coaches, allowing for immediate tactical changes during a game. Injuries are a common concern in volleyball due to the repetitive jumping, diving, and quick directional changes inherent in the sport. Wearable technologies have emerged as critical tools for injury prevention and recovery. By monitoring biomechanical data, such as joint angles and impact forces, these devices can Identify early signs of overuse injuries, provide feedback on improper techniques that may lead to injuries, Track rehabilitation progress for injured players. Advanced wearables equipped with motion analysis capabilities can alert players and medical staff to potential risks, enabling timely interventions and reducing downtime. In recent years, wearable technologies have revolutionized sports, offering athletes and coach's unprecedented opportunities to enhance performance, prevent injuries, and optimize strategies. Volleyball, a sport demanding agility, precision, and teamwork, has particularly benefited from these innovations. This article explores the innovative applications of wearable technologies in volleyball competitions, emphasizing their transformative impact on the game.

Keywords: Volleyball, Tactical Analysis, Player Performance Monitoring Referee Assistance and Training and Skill Development.

EFFECT OF INTERVAL TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG STATE MALLAKHAMB PERFORMERS

***Dr. K. Ambethkar.**, Assistant Professor, Cheran College of Physical Education, Karur.

****Dr. D. Natarajan.**, Assistant Director, Department of Physical Education, Fisheries College and Research Institute, Dr. J. Jayalalithaa Fisheries University, Thoothukudi, Tamil Nadu.

ABSTRACT

Interval training is perhaps the most method for improving endurance of various types. In interval method the activity is done at relatively higher Intensity with intermittent intervals of in complete recovery, in this method the activity is done with sufficient speed, distance and duration to increase the heart rate up to 180 beats / min. After this there should be a recovery period and when the heart rate comes down to 120-130 beats / min this work should be started again. Interval training is a method of training where increase and decrease, the intensity of workout between aerobic and anaerobic training. Interval Training in Sweden, where some say it originated, is known as fatlike Training Swedish for "speed play". The protocol for interval training is to push to body past the aerobic threshold for a few moments and then return to aerobic conditioning level with the objective of improving to performance speed, strength, endurance. The purpose of the study was to find out effect of interval training on selected physical fitness variables among state mallakhamb performers. To achieve this purpose of the study, 30 men mallakhamb performers in the Tamilnadu Mallakhamb Association, Tamilnadu were selected as subjects at random. Their age ranged between 18 to 22 years. The selected subjects were divided in to two equal groups of fifteen each namely physical training group and control group. The following variables namely flexibility and cardio respiratory endurance were selected as criterion in variables. The experimental groups have undergone twelve weeks of training program, whereas the control group maintained their daily routine activities and no special training was given to them. The subjects of the two groups were tested on selected physical fitness variables namely flexibility and cardio respiratory endurance using sit and reach test and cooper's 12 minutes run/walk test respectively at before and immediately after the training period. The collected data were analysed statistically through analysis of covariance (ANCOVA) to find out the significant differences, if any among the groups. The .05 level of significance was fixed to test the level of significance which was considered an appropriate. The results of the study showed that physical training group showed significant improvement on selected physical fitness variables namely flexibility and cardio respiratory endurance when compared to control group.

Key Words: Physical Training, Flexibility, Cardio Respiratory Endurance and Mallakhamb.

EFFECTS OF YOGASANAS AND MALLAKHAMB PRACTICES ON SELECTED PHYSICAL AND PHYSIOLOGICAL VARIABLE AMONG SCHOOL BOYS

***Dr. D. Natarajan.**, Assistant Director, Department of Physical Education, Fisheries College and Research Institute, Dr. J. Jayalalithaa Fisheries University, Thoothukudi, Tamil Nadu.

****Dr. K. Ambethkar.**, Assistant Professor, Cheran College of Physical Education, Karur.

ABSTRACT

The word “yoga” comes from the Sanskrit root yoj, which means ‘to join’ or “yoke”. yoga is the joining of the individual soul to the universal soul the union of the personal spirit to god. Yoga is a system of spiritual and physical culture practiced from ancient times in India. Yoga has been applied not only to the control aim of the attaining heightened consciousness but also to the development of every human facility – physical, emotional and ethical which may conduce to that end. The main aim of sports is physical and mental ability along with physical, mental relaxation and wellness is the key factor of healthy life in this world. Mallakhamb is one of them, probably even best of them. The mallakhamb is an art. Mallakhamb is a traditional Indian sport in which the player performs poses and feats while hanging from a vertical wooden pole. Mallakhamb also refers to the pole used in the sport. The purpose of the study was to find out effects of yogasanas and mallakhamb practices on selected physical and physiological variable among school boys. To achieve this purpose of the study, 45 men students studying in the government higher secondary school, Punnam Chathiram, Karur district in Tamilnadu were selected as subjects at random. Their age ranged between 15 to 17 years. The selected subjects were divided in to three equal groups of fifteen each namely yogasanas group, mallakhamb practices group and control group. The experimental groups have undergone twelve weeks of training programmers, whereas the control group maintained their daily routine activities and no special training was given to them. The subjects of the three groups were tested on selected flexibility and vital capacity using sit and reach test and standardized tests namely spirometer at before and immediately after the training period. The collected data were analysed statistically through analysis of covariance (ANCOVA) to find out the significant difference, if any among the group. The .05 level of significance was fixed to test the level of significance which was considered an appropriate. The result of the study showed that yogasanas and mallakhamb practices groups showed significant on flexibility and vital capacity compared to control group.

Key Words: *Yogasanas, Mallakhamb, Flexibility and Vital capacity.*

OUTCOME OF HIGH INTENSITY COURSE TRAINING ON SELECTED PHYSIOLOGICAL VARIABLE OF MALE BADMINTON PLAYERS

***Mr. S. Pragatheeswaran.**, Research Scholar, Madurai Kamaraj University, Madurai.

****Dr. N. Rajasekar.**, Director of Physical Education, G.T.N, Arts College, Dindugul.

ABSTRACT

Circuit training is a method of physical conditioning in which one moves from one exercise to another, usually in a series of different stations or pieces of equipment. Circuit training is a style of training that develops overall fitness. Performed regularly, circuit training will simultaneously improve muscular strength, endurance, cardiovascular fitness, and flexibility. It is an excellent training program for improving different type of physical fitness abilities based on the program in different stations. In sports training the coaches are applying various means and methods to make their athletes run faster, jump higher and move quicker than ever before to achieve higher performance. Course or circuit Training is active and the methodical sequenced designs of biomechanical movements synchronized with breathing techniques that maximize circulation and energies the whole body system. The study was designed to investigate the influence of high intensity circuit training on selected physiological variables of male badminton players. To achieve the determination of the study 30 male badminton players were selected from various academies in Madurai district. Their aged of the subject ranged from 20 to 25 years. Selected subjects were randomly allotted to two equal groups (n=15), group I underwent high intensity circuit training (HICT) and group II acted as control group (CG). The high intensity circuit training was given to the untried group for 3days per week for the period of 8 weeks. The control group did not practice in any training except their routine work. The following variables were measured with standard test items: Vo₂ Max (Cooper Vo₂ Max Test) and Vital Capacity (Wet Spirometer). Pre and post test was conducted on distinct days with warm up. The data was analyzed by smearing Paired sample 't' test. The level of significance was set at 0.05. The high intensity circuit training had positive impact on Vo₂ Max and Vital Capacity of male badminton players. The result of the present study Vo₂ Max and vital capacity speculated significant improvement due to the high intensity circuit training of male badminton players. A game-based involvement intensive on increasing active commuting to players was associated with increases in rates of high intensity circuit training to badminton players, However, the game-based involvement avoided increases in rates of passive commuting in the experimental group, which were significantly increased the control group.

Key Words: VO₂ Max, Vital Capacity, High Intensity Circuit Training and Badminton Players.

THE EFFECTS OF COMBINING FARTLEK TRAINING AND YOGIC PRACTICES ON PHYSICAL AND PHYSIOLOGICAL VARIABLES OF VOLLEYBALL PLAYERS

*Mr. R. Perumal., Research Scholar, Madurai Kamaraj University, Madurai.

ABSTRACT

Fartlek, which means "speed play" in Swedish, is continuous training with interval training. Fartlek runs are a very simple form of a long-distance run. Fartlek training "is simply defined as periods of fast running intermixed with periods of slower running." For some people, this could be a mix of jogging and sprinting, but for beginners it could be walking with jogging sections added in when possible. The pursuit of physical fitness and mental well-being has seen the integration of diverse training methodologies, blending traditional and modern approaches. Among these, the fusion of fartlek training—a dynamic and versatile form of interval running with yogic practices rooted in ancient wisdom, represents an innovative approach to holistic fitness. Fartlek training is a very general form of frequently conditioning of healthy individuals that has been extensively studied over the last decades. In this article, we critically review the available literature related to Fartlek training and its effects on fitness in team sport athletes. The purpose of the study was to investigate the effect of fartlek training with yogic practices on selected physical and physiological variables of volleyball players. Thirty out of players were randomly selected from inter collegiate men volleyball players in Madurai District, the selected players were divided into two groups consisting of 15 players. No attempt was made equate the groups. The age of the subjects ranged between 21 to 25 years. The influence of the fartlek with yogic practices was assessed on selected variables. The training load was increased from the maximum working capacity of the subject doing pilot study. The duration of the training period was restricted to eight weeks and the number of sessions per week was confined to three. The data obtained from all the groups before and after the experimental period were statistically analysed by dependent 't' test to find out the significant improvement if any, 0.05 level of confidence was fixed to the level of significance between pre and post-test means of all groups. Pre and post test was conducted on separate days with warm up. The Explosive power measured by sergeant jump test in centimetres and Breath holding time measured by breath holding fitness test in seconds. Further, the findings confirmed the fartlek training with yogic practices is suitable protocol to bring out the desirable changes over the explosive power and breath holding time of volleyball players.

Key Words: *Fartlek training with Yogic Practices, Volleyball Players, Explosive Power and Breath Holding Time.*

IMPACT OF EXERCISE ON MENTAL HEALTH PHYSICAL FITNESS AND PHYSIOLOGICAL PARAMETERS AMONG HEALTH SCIENCE STUDENTS

*V. Jayant Kumar., Assistant Professor, Department of Physical Education, Palakkad Institute of Medical Science, Walayar, Palakkad, Kerala.

ABSTRACT

Exercise has long been recognized for its positive impact on physical health, but its benefits extend far beyond that, encompassing improvements in mental health and physiological parameters. Among health science students, who often face high academic pressures and sedentary lifestyles, regular physical activity can serve as a vital tool for alleviating stress, enhancing mood, and improving overall well-being. Exercise, including aerobic, resistance, and flexibility training, has been shown to reduce symptoms of anxiety, depression, and fatigue while boosting cognitive function and emotional stability. Mental health challenges, including stress, anxiety, and depression, are common among health science students due to the rigorous nature of their studies. Study indicates that regular exercise can alleviate these issues by enhancing mood, reducing stress, and improving cognitive function. This releases of endorphins and serotonin, which act as natural mood elevators, thereby fostering emotional resilience and psychological well-being. The study employs a quasi-experimental pre-test/post-test design with a control group to evaluate the 12-week structured exercise program's effectiveness. Sixty health science students aged 18–25 years will be selected through simple random sampling, with 30 assigned to the intervention group and 30 to the control group. Pre- and post-test measurements will assess changes in physical fitness, physiological parameters, and mental health. Inclusion criteria require participants to be currently enrolled medical students with no history of chronic illness or injuries preventing exercise, ensuring they are physically capable of participation. Provides insights into how exercise enhances health science students' well-being, supporting health promotion strategies. It improves cognitive function, stress, and academic productivity. Informs public health initiatives emphasizing exercise as a preventive measure for mental health and chronic diseases. Lays the groundwork for future studies on exercise interventions in student populations and other professional groups. Guides educators and policymakers in designing programs to improve students' mental and physical health. Stresses the importance of addressing psychological factors, contributing to holistic well-being. The expected outcomes of the 12-week exercise program will improve Mental Health outcomes, such as better mood and quality of life, improves Physical Fitness & well-maintained Physiological Parameters among Health Science Students.

Keywords: aerobic, resistance, flexibility training, anxiety and depression.

**A STUDY ON THE EFFECTS OF PLYOMETRIC AND
RESISTANCE TRAINING ON PHYSICAL FITNESS
ATTRIBUTES OF COLLEGE MEN
VOLLEYBALL PLAYERS**

***A. Prabhakaran.,** Research Scholar, Navarasam Arts & Science College for Women, Arachalur, Erode, Tamil Nadu, India.

****Dr. K. Kavitha.,** Director of Physical Education, Navarasam Arts & Science College for Women, Arachalur, Erode, Tamil Nadu, India.

ABSTRACT

Sports training is a special process of preparation of sports persons based on scientific principles aimed at improving and maintaining higher performance capacity in different sports activities. It is a particular type of training designed to improve fitness and abilities to perform in a given sport. It includes strength in training, corrective and restorative exercises, conditioning and cardiovascular training. It also includes mental and psychological training and advise on nutritional values. Plyometric training can improve your physical performance and ability to do different activities. Plyometric can include different types of exercises, like push-ups, throwing, running, jumping, and kicking. Athletes often use plyometric as part of their training, but anyone can do these workouts. Resistance training exercises involve pushing or pulling against the resistance of an object, whereas strength training involves a large amount of muscle tissue by continuously increasing the weight you lift (while lowering the number of reps), which leads to bigger body gains in strength. The objective of this study was to examine the effect of different training programs on selected physical fitness variables among college-level male volleyball players. Sixty volleyball players from Coimbatore district, aged 18 to 25 years, were randomly selected as participants and divided into four groups of fifteen each. Experimental Group I underwent plyometric training combined with game-specific drills, Experimental Group II participated in resistance training with game-specific drills, and Experimental Group III performed a combination of plyometric and resistance training along with game-specific drills. Group IV served as the control group and did not engage in any specialized training. The training duration for the experimental groups was 12 weeks. Physical fitness was assessed by measuring leg explosive power. Further research focusing on extended training interventions among elite volleyball players could provide deeper insights into the effectiveness of plyometric and resistance training in enhancing volleyball-specific skills and overall performance.

Keywords: *Plyometric Training, Resistance Training, Volleyball, Physical Fitness, Leg Explosive Power.*

IMPACT OF PLYOMETRIC AND YOGIC TRAINING ON SELECTED MOTOR FITNESS PARAMETERS AMONG COLLEGE MEN VOLLEYBALL PLAYERS

***Mr. K. Senthil Kumar.,** Research Scholar, SRMV College of Arts and Science, Coimbatore.

****Mr V. Shanmugam.,** Assistant Professor, SRMV College of Arts and Science, Coimbatore.

***Mr. Dhanseelan Palanisamy.,** Research Scholar, Department of Physical Education, University of Kerala, Trivandrum.

ABSTRACT

Plyometric training should be considered in the context of the athlete's age, skill level, injury history and numerous other variables that make up his athletic development. Plyometric activities into a well-designed program that is safe, effective and enjoyable. The cornerstone of plyometric training for young athletes is age-appropriate education and instruction by qualified professionals who understand the physical and psychosocial uniqueness of children and adolescents. However, a growing body of evidence indicates that regular participation in well-designed, sensibly progressed and properly instructed training programs that include resistance and plyometric training can offer measurable value for children and adolescents. Young people are often ill-prepared for the physical and psychological demands of sports practice and competition because of the decline in physical activity among children and adolescents. This study was designed to investigate the impact of plyometric and yogic training on selected motor fitness parameters among college men volleyball players. To achieve the purpose of the study (N=60) sixty men students were selected from Selvam college of physical education, Tamilnadu, India as subjects. The age of the subjects ranged from 19 to 23 years. The selected subjects were divided into three equal groups (N=20). Group I underwent plyometric training. Group II underwent yogic training. Group III acted as control group who did not undergo any specialized training program other than their daily routine. The motor fitness parameters such as Speed and Agility. Were selected as dependent variables and they were assessed by 50 yards' dash, Illinois agility test respectively. The subjects were concerned with their particular training for a period of six weeks, six days per week. The collected data from three groups prior to and immediately after the training programme on selected criterion variables were statistically analysed with analysis of covariance (ANACOVA). The level of confidence was fixed at 0.05 for all the cases to test the hypothesis. The result of the study reveals that the of plyometric and yogic training groups achieved significant improvement on selected motor fitness parameters such as Speed and Agility men students.

Keywords: *Plyometric Training, Yogic Training, Speed and Agility.*

IMPACT OF AEROBIC POWER TRAINING ON THE DEVELOPMENT OF CARDIO RESPIRATORY ENDURANCE OF MALE INTER COLLEGIATE MEN PLAYERS

***Gopala Krishna.P.**, Research Scholar, Kongu Nadu Arts and Science College, Coimbatore, Tamil Nadu.

ABSTRACT

Aerobic power training describes the functional status of the cardio respiratory system. Aerobic capacity is defined as the maximum amount of oxygen the body can use during a specified period, usually during intense exercise. It is a function both of cardio respiratory performance and the maximum ability to remove and utilize oxygen from circulating blood. To measure maximal aerobic capacity, an exercise physiologist or physician will perform a vital capacity test, in which a subject will undergo progressively more strenuous exercise on a treadmill, from an easy walk through to exhaustion. The individual is typically connected to a spirometer to measure oxygen, and the speed is increased incrementally over a fixed duration of time. The higher aerobic capacity, the higher the level of aerobic fitness. The Cooper and multistage fitness tests can also be used to functionally assess aerobic capacity. In most people, aerobic capacity can be improved through a variety of means, including fartlek training. Energy is derived aerobically when oxygen is utilizing substrates obtained from food, and deliver energy to the working muscles. A sports event, or activity that will build cardio respiratory endurance, is termed aerobic when the majority of the energy in the athlete is derived aerobically. Aerobic activities that are performed continuously for a minimum of 15 to 20 minutes at a level of 70% to 90% of maximal heart rate; and not less than three times. Athletes requiring a higher level of aerobic fitness will train four to six days a week. Examples of large muscle group activities include walking, jogging running non-sprint cycling, swimming, and cross country skiing. The present study is to find out the impact of aerobic power training on the development of cardio respiratory endurance of inter-collegiate men players. To execute this investigation 30, Inter - Collegiate men players studying physical education course at Aditya College of Physical Education Bobbili Andhra Pradesh. Their age will be from 20 to 30 years. They were again divided in to two equal groups at a random basis, in which one group is called as control group and other group is called experimental group. The experimental group is treated with aerobic power training for a period of six weeks. cardio respiratory endurance is measured by Cooper 12 minutes run/walk test. The calculated data were analyzing statistically by using t ratio test to determine the differences.

Keywords: *Aerobic training and cardio respiratory endurance.*

IMPACT OF AEROBIC TRAINING AND CIRCUIT TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG COLLEGE LEVEL FOOTBALL PLAYERS

*Reddi Gowru Naidu., Research Scholar, NGM College, Pollachi, Tamil Nadu, India.

** Dr. R. Ashok kumar., Director of Physical Education, NGM College Pollachi, Tamil Nadu, India.

ABSTRACT

Aerobic training, often referred to as cardiovascular or endurance training, involves prolonged physical activities that elevate the heart rate and enhance the efficiency of the cardiovascular system. This type of exercise, which includes activities like running, cycling, swimming, and dancing, primarily utilizes oxygen to generate energy, improving overall stamina and endurance. Regular aerobic training not only strengthens the heart and lungs but also aids in weight management, boosts mood, and promotes overall health by reducing the risk of chronic diseases. Flexibility and muscular strength are two fundamental components of physical fitness that play a crucial role in overall health and performance. Flexibility refers to the range of motion in the joints and muscles, allowing for improved movement efficiency and reduced risk of injury, while muscular strength pertains to the ability of muscles to exert force against resistance. The purpose of the study was to find out the impact of aerobic training and circuit training on selected physical fitness variables among college level football players. To achieve the purpose of the study, was delimited to sixty male intercollegiate football players selected randomly from Visakhapatnam district, Andhra Pradesh. The age of the subjects was from 18 to 25 years from the academic year 2023-2024. The selected subjects were divided into two groups. Group I underwent aerobic training, Group II underwent circuit training and Group III acted as control. The experimental groups were subjected to the aerobic training and circuit training for six days for eight weeks. The aerobic training and circuit training was selected as independent variable and the criterion variables flexibility and muscular strength were selected as dependent variables and the selected dependent variables were assessed by the standardized test items. Flexibility was assessed by sit and reach test and the unit of measurement in centimeters and muscular strength was assessed by sit-ups test and the unit of measurement in Numbers. The experimental design selected for this study was pre and post-test randomized design. The data were collected from each subject before and after the training period and statistically analyzed by using dependent 't' test and analysis of covariance (ANCOVA). It was found that there was a significant improvement and significant different exist due to the effect of aerobic training and circuit training on flexibility and muscular strength.

Keywords: *Aerobic training, circuit training, Flexibility and Muscular Strength.*

EFFECT OF CIRCUIT TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES AMONG POLYTECHNIC VOLLEYBALL PLAYERS

*S. Shanthi., Physical Director, Sakthi Polytechnic College, Sakthinagar, Erode.

ABSTRACT

Physical fitness is one of the components of the total fitness of the individual, which also includes mutual, social and emotional fitness. It is one of the basic requirements of life broadly speaking it means the ability to carry out our daily tasks without under fatigue. Strength endurance is required in all sports movement, whether fast or slow, movements have to be done under lesser or higher conditions of fatigue. Agility is a combination of several athletic traits such as strength, reaction time, speed of movement, power and co-ordination. It's display becomes essential in such movements as dodging, zigzag running, stopping and starting and changing body positions quickly. In Volleyball, it can be played more skilfully when players have the power that combines with strength and speed to develop explosive power for participating in various sports activities. Agility is a combination of several athletic traits such as strength, reaction time, speed of movement, power and co-ordination. It's display becomes essential in such movements as dodging, zigzag running, stopping and starting and changing body positions quickly. Circuit training is a high-intensity, time-efficient, and flexible training method that involves performing a series of exercises in rapid succession with minimal rest between exercises. In volleyball, it can be played more skilfully when players have the power that combines with strength and speed to develop explosive power for participating in various sports activities. The Circuit exercises improve significantly in developing physical fitness variables of volleyball players. The purpose of the study was to find out the effect of circuit training on selected physical fitness variables among polytechnic volleyball players. To achieve this purpose, thirty male volleyball players were selected as subjects, their aged between 16 to 20 years, they are studying in the Sakthi polytechnic College, Erode, Tamil Nadu. The selected subjects were divided into two equal groups of fifteen subjects each, namely circuit training group and control group. The circuit training group trained for three sets per exercise per session at 60 to 80% with a progressive increase in load with the number of weeks. Strength endurance and agility were selected as criterion variables and they were tested by using sit-ups and shuttle run respectively. ANCOVA was used to find out the significant difference if any between the groups. The results of the study showed that there was a significant difference on strength endurance and agility between circuit training group and control group. The circuit exercises improve significantly in developing physical fitness variables of Volleyball players.

Key words: Circuit training, Physical fitness, Strength Endurance, Agility.

EFFECT OF PERSONALIZED SPRINT TRAINING ON BIOMOTOR VARIABLES IN MALE HANDBALL PLAYERS

***M. Sridhar.**, Research Scholar, Department of Physical Education, Kongu Arts and Science College, Erode, Tamil Nadu, India.

****Dr. A. Sankar.**, Director of Physical Education, Kongu Arts and Science College, Erode, Tamil Nadu, India.

ABSTRACT

Physical fitness plays a critical role in the performance of handball players, as the sport demands a combination of speed, agility, endurance, and explosive power. Sprinting is a fundamental component of handball, as players frequently perform high-intensity bursts of running during matches. However, generic training programs may not adequately address the specific needs of individual players. Individualized sprint training, tailored to each athlete's strengths and weaknesses, can provide targeted improvements in physical fitness variables. Speed is one of the most essential physical fitness components for handball players, as the game requires high-intensity actions such as sprints, rapid direction changes, and explosive movements. A player's ability to accelerate quickly, decelerate effectively, and maintain optimal speed is critical for successful performance during offensive and defensive plays. Individualized speed training allows for tailored programs that target specific areas, optimizing improvements in speed and other related physical fitness parameters. This study examines the impact of such training on male handball players to determine its effectiveness in improving physical fitness variables critical to handball performance. The aim of this research was to investigate the effect of tailored sprint training on bio motor variables among male handball players. Sprint training plays a vital role in athletic performance, focusing on improving key physical attributes such as speed, power, and endurance. In this study, participants underwent a customized sprint training program over a specific duration. Evaluations conducted before and after the training targeted stride length as a primary bio motor variable. The findings revealed substantial enhancements in sprint speed, explosive power, and overall performance. The individualized nature of the program enabled personalized adjustments, leading to more efficient physical development in the athletes. This research highlights the advantages of customized sprint training in optimizing performance for handball players, underlining the significance of personalized approaches in team sports. The outcomes have implications for refining training strategies and improving athletic results in handball and comparable sports.

Keywords: *Tailored sprint training, bio motor variables, male handball players, speed, power, agility, endurance, athletic performance, personalized programs, explosive strength, training strategies.*

s.

INFLUENCE OF YOGA PRACTICES ON KEY PHYSIOLOGICAL AND BIOCHEMICAL PARAMETERS IN DIABETIC PATIENTS

***R. Vaishnavi.**, Research Scholar, Department of Physical Education, RVS College of Arts and Science, Coimbatore, Tamil Nadu, India.

****Dr. E. Sathya.**, Director of Physical Education, RVS College of Arts and Science, Coimbatore, Tamil Nadu, India.

ABSTRACT

As a being composed of physical, mental, and spiritual dimensions, humans benefit from yoga's ability to foster balanced development across all these aspects. While physical exercises such as aerobics primarily target physical fitness, yoga extends its benefits to the astral and spiritual realms as well. Yoga exercises promote holistic well-being by recharging the body with cosmic energy, fostering equilibrium, and harmonizing the body, mind, and spirit. The science of yoga shares a unified goal: to enhance health, achieve personal power, expand knowledge, and attain peace of mind. Yoga is known to reduce stress, relieve physical tension, and activate the parasympathetic nervous system. Diabetes, on the other hand, is a chronic condition characterized by insufficient insulin production by the pancreas or ineffective use of insulin by the body. This leads to hyperglycaemia, or elevated blood sugar levels, which, if uncontrolled, can cause severe damage to various bodily systems, including the nerves and blood vessels (WHO, 2011). The objective of this study was to examine the effects of yoga practices on selected physiological and biochemical variables in diabetic patients. A total of 45 male diabetic patients from Erode district, Tamil Nadu, India, were randomly selected as participants. Their age ranged from 40 years, with heights varying from 163 to 171 cm and weights between 62 to 78 kg. The standard deviations for age, height, and weight were 0.18 years, 0.06 cm, and 0.09 kg, respectively. The participants were divided into three groups of 15 each: Group I engaged in yoga practices three days per week, Group II practiced yoga five days per week, and Group III served as the control group. The experimental groups participated in their respective yoga regimens for a period of 12 weeks. Participants were informed of their right to withdraw from the study at any time should they experience discomfort during the program. The study focused on several key variables, including breath-holding time, resting pulse rate, respiratory rate, and high-density lipoprotein cholesterol (HDL). Data were collected from all three groups before and after the training program. Dependent t-tests and Analysis of Covariance (ANCOVA) were employed to analyze the data statistically. If the F-ratio for adjusted post-test means was found significant, Scheffe's test was applied as a post hoc analysis to determine which paired mean differences were statistically significant.

Key Words: *Yoga, Physical Fitness, Breath Holding Time.*

INFLUENCE OF UP HILL DOWN HILL TRAINING ON SELECTED CARDIOPULMONARY FITNESS VARIABLES AMONG LONG DISTANCE RUNNERS

* **Maddena Gopi.**, Research Scholar, SRKV College of Arts and Science, Coimbatore.

** **Dr. G. Balasundar.**, Head, Department of physical Education Health Education and Sports, SRKV College of Arts and Science, Coimbatore.

ABSTRACT

A sport is an organized, competitive, and skillful physical activity requiring commitment and fair play. It is governed by a set of rules or customs. In a sport the key factors are the physical capabilities and skills of the competitor when determining the outcome (winning or losing). The physical activity involves the movement of people, animals and/or a variety of objects such as balls and machines. In contrast, games such as card games and board games, though these could be called mind sports, require only mental skills. Non-competitive activities such as jogging and rock-climbing are usually classified as recreations. The man's day to day life physical activity takes an important role. The man becomes fit for physical activity by developing required skills, strength and endurance. Man should be more fit than what the daily necessities of his life required, so that he can meet the occasional emergencies that arise. These emergencies may include sudden need to increase great efficiency in his working hours to take care of some immediate situation. The situation may be very vital and upsetting. Whatever the emergency that thrusts itself on man, he has to carry on. Sports are a means of developing this emergency fitness. Aim of the Study find out the assess the influence of uphill downhill and sprint runs in treadmill on selected cardiopulmonary fitness and psychomotor variables among long distance runners. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=60) were randomly assigned to four equal groups of Fifteen Long Distance Runners in each group. The groups were assigned as Experimental Groups I, II, III and control group respectively. Experimental group I was assigned as Uphill training on Treadmill for twelve weeks), Experimental group II was assigned as Downhill Training on Treadmill for twelve weeks and Experimental group III was assigned as Sprint running training on Treadmill for twelve weeks and fourth group control group. The control group was not given any special treatment except of their routine. Pre-tests and post-test were conducted on selected VO₂ max The experimental groups participated in their respective training protocols for a period of twelve weeks. The statistical significance of the differences was tested through ANCOVA. In all cases 0.05 levels was fixed to test the hypothesis of this research.

Key Words: *VO₂ max and uphill downhill training.*

THE ROLE OF STRENGTH TRAINING IN INJURY PREVENTION FOR YOUNG ATHLETES

***Mr. J. John Antony.**, Physical Education Teacher, Invictus International School, Phnom Penh Cambodia.

****Dr. S. Karunanidhi.**, Director of Physical Education, Hindusthan college of Arts and Science, Coimbatore.

ABSTRACT

Research has demonstrated that Strength training is both safe and effective in children and adolescents (Lloyd et al., 2014). Resistance training for health and fitness conditioning in youth also results in a lower risk of injury when compared with many popular sports, including soccer, football, and basketball. To understand the role of strength training in injury prevention, it's crucial to first grasp its basic concepts. Strength training, often referred to as resistance or weight training, is a form of exercise aimed at enhancing muscular fitness by targeting specific muscles against external resistance. By gradually increasing weight or resistance, we can promote muscle strength. With enhanced strength, muscles are better equipped to handle stress, ultimately reducing the risk of injury. Every athlete knows the importance of a well-balanced body. Strength training ensures all muscle groups are equally strong, preventing imbalances that can lead to sports injuries. When muscles are balanced, they provide better support to the joints, reducing the risk of strains and sprains. A well-rounded strength program allows long and short muscle fibers to maintain flexibility and balance. This, in turn, supports the body's joints against repetitive motions or sudden movements that may lead to sprains or tears. In the world of sports and athletics, injuries are a common concern. From sprained ankles to torn ligaments, athletes often find themselves side-lined due to these unfortunate injuries. However, one of the best ways to prevent these injuries in the first place is by incorporating strength training into a young athlete's fitness routine. Whether you are a runner, a soccer enthusiast, or just looking to increase your activity levels, strengthening the muscles around your joints is paramount to a healthy and injury-free lifestyle. Injury prevention is a critical concern in youth sports, as injuries can lead to long-term health consequences and hinder athletic development. Strength training has emerged as an effective strategy to enhance physical resilience, improve biomechanics, and reduce the risk of common sports injuries. Despite misconceptions about its safety, evidence suggests that properly designed strength training programs can benefit young athletes by promoting muscle balance, joint stability, and overall physical conditioning. This paper explores the role of strength training in injury prevention, discusses safe and effective training methods, and provides recommendations for implementing strength training in youth sports programs.

Key Words: *strength training, athletes, physical conditioning, injury prevention.*

EXPLORING THE EFFECT OF ECCENTRIC HIGH INTENSITY INTERVAL TRAINING AND GAME SPECIFIC TRAINING ON COORDINATIVE ABILITIES AMONG SCHOOL LEVEL HANDBALL PLAYERS

***Dr. P. Mohanavalli**, Director of Physical Education, Government Arts and Science College, Thennangur, Vandavasi.

ABSTRACT

Handball is a complex nature of sport. It emphasis on running, jumping, sprinting, throwing, hitting, blocking, and pushing, thus, it demands all motor fitness components such as speed, agility, flexibility, strength and explosive power invariably their influence on performance. In addition to technical and tactical skills, it has been shown that high levels of strength, muscle power, and handball throwing velocity are the most important factors that give a clear advantage for successful participation in elite levels of handball leagues (Gorostiaga et al., 2004). The purpose of the study was designed exploring the effect of eccentric, high intensity interval and game specific training on coordinative abilities among school level handball players. To achieve the purpose of the study, sixty (n=60) boys handball players were randomly selected from the Vandavasi Thiruvannamalai District inter –school handball players, during the year 2023-2024. The age of subjects ranged from 15-18 years. The investigator used pre and post-test random group design in this study. This procedure involves dividing a sample into two or more groups based on random selection. The investigator did not make any attempt to equate the groups in this study. The treatment was administered to all the experimental groups for a period of 12 weeks. At the end of twelve weeks, the post test was administered to all the groups. At the end of the treatment period, as post-test, the subjects belonging to the performance related components and specific skill variables related treatment groups namely eccentric training group I, high intensity interval training group II, game specific training group III and control group IV were tested on coordinative abilities namely differentiation ability and orientation ability. The collected data were processed with appropriate statistical tools and the detailed procedure of the same was given below. The data obtained from the experimental groups and control before and after the experimental period were statistically analysed with dependent ‘t’ test and Analysis of covariance (ANCOVA). Whenever the ‘F’ ratio for adjusted post-test means was found to be significant, the Scheffe’s Post hoc test was applied to determine the paired mean differences. The level of confidence was fixed at 0.05 level for all the cases. In the proposed study ANCOVA were applied to interpret the Influence of different training packages on selected physical fitness, Coordinative abilities among school level boys handball players.

Keyword: *Eccentric high intensity interval training.*

SPRINT PERFORMANCE AND PHYSICAL VARIABLES ENHANCEMENT THROUGH LADDER AND PLYOMETRIC TRAINING IN MALE ENGINEERING ATHLETES

***Kamala Devi Pathuri.**, Research Scholar, Department of Physical Education, Kongu Arts and Science College, Erode, Tamil Nadu, India.

****A. Sankar.**, Director of Physical Education, Kongu Arts and Science College, Erode, Tamil Nadu, India.

ABSTRACT

Sport is an integral part of human existence, offering not only physical engagement but also profound personal discovery and spiritual connection. It reaches the core of human life, providing opportunities for individuals to realize their potential and truth. In sports, the term "training" encompasses various preparations aimed at enhancing performance. Circuit training is an effective approach for developing multiple fitness components and skills, particularly in large groups. It involves rotating through multiple stations where athletes perform specific exercises for a predetermined duration or number of repetitions before moving to the next station. Plyometric training, also known as bounding exercises, is designed to enhance power, coordination, and explosiveness. It often incorporates equipment like boxes to leverage gravity and add resistance, maximizing the training effect. Strength training focuses on building muscular strength, endurance, and size using various forms of resistance, such as barbells, resistance bands, machines, or even body weight. This method is critical for improving overall athletic performance. Endurance training includes sustained activities that enhance cardiorespiratory fitness and muscular endurance. Exercises like jogging, swimming, and cycling help improve aerobic capacity while building stamina and endurance. This study focused on 45 (N=45) male athletes who participated in the Anna University Zone-16 Intercollegiate Athletic Meet during the 2018-2019 academic year. The participants, aged 18 to 21 years, were randomly assigned to three groups, each comprising 15 individuals (n=15). Group I underwent Ladder Training, Group II underwent Plyometric Training, and Group III served as the Control Group. All participants were fully informed about the experimental procedures and voluntarily consented to participate. The study aimed to measure the impact of these training interventions on selected variable, including speed. Two scientifically designed training programs, Ladder Training and Plyometric Training, were implemented for Groups I and II, respectively. The Control Group did not undergo any specific training. The data collected were analysed using ANCOVA to determine significant differences between the groups.

Keywords: *Plyometric Training, Ladder Training, Sprint Performance.*

ENHANCING POWER PERFORMANCE THROUGH PLYOMETRIC AND TRADITIONAL TRAINING IN SCHOOL BASKETBALL PLAYERS

***S. Krishnamurthi.**, Research Scholar, Department of Physical Education, RVS College of Arts and Science, Coimbatore, Tamil Nadu, India.

****Dr. E. Sathya.**, Director of Physical Education, RVS College of Arts and Science, Coimbatore. Tamil Nadu, India.

ABSTRACT

Basketball is a sport requiring high levels of explosive power, essential for actions such as sprinting, jumping, and rapid directional changes. Explosive power refers to the ability to generate maximum force in the shortest possible time, which is critical for improving game performance. Factors such as muscle strength, neuromuscular coordination, contraction speed, and the stretch-shortening cycle (SSC) contribute significantly to explosive power. Basketball is a fast-paced and dynamic sport requiring a combination of speed, explosive leg power, and technical skills. To enhance these attributes, training programs often incorporate diverse methods to optimize athletic performance. This study aimed to evaluate the influence of plyometric and traditional training on selected power performance variables among school-level basketball players. Forty-five (N=45) male basketball players from inter-school competitions in Bangalore District, Karnataka, India, during the 2023–2024 academic year were randomly selected as participants. Their ages ranged from 15 to 17 years. The participants were divided into three groups of 15 each: Group I (Plyometric Training), Group II (Traditional Training), and Group III (Control Group), which did not engage in any specialized training. Both experimental groups underwent an 8-week training regimen. The study measured explosive strength and other power-related variables. Statistical analysis was performed using ANCOVA to identify significant differences between the groups, while paired t-tests assessed within-group improvements. A 0.05 confidence level was used to determine statistical significance. Results revealed significant improvements in explosive strength for the experimental groups, with Group I (Plyometric Training) showing superior gains compared to Group II (Traditional Training). The control group exhibited minimal changes. Plyometric training proved particularly effective in enhancing explosive power by leveraging the stretch-shortening cycle (SSC) and improving neuromuscular coordination. Future research could explore long-term interventions among elite athletes to further understand the role of these training methodologies in basketball performance development.

Key Words: *Plyometric Training, Traditional Training, Explosive Strength, Basketball.*

SPORTS MEDICINE PRACTICES AMONG ATHLETES AND NON-ATHLETES: AN ANALYTICAL APPROACH

***M. Harinaracim.**, Research Scholar, Department of Physical Education, RVS College of Arts and Science, Coimbatore, Tamil Nadu, India.

****Dr. E. Sathya.**, Director of Physical Education, RVS College of Arts and Science, Coimbatore, Tamil Nadu, India.

ABSTRACT

Providing health for everyone in the community is one of the most important issues in each country (Ferguson, Coulson, & Barnett, 2011). According to the definition of the World Health Organization (2013), mental health is defined as a state of wellbeing in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. Therefore, in assessing the usage of sports medicine of individuals, one should not only focus on traditional health indicators such as mortality and disease, but also the perception of people about their quality of life (physical, mental and social status). The purpose of the current study was to analyze the usage of sports medicine among male athletes and non-athletes. The study population consisted of all male athletes and non-athletes in Salem, Tamil Nadu, India. A sample of 450 participants was selected, comprising 225 athletes chosen through random sampling based on a sample size table and 225 non-athletes selected via purposive sampling. To measure the usage of sports medicine, the Sports Medicine Usage Questionnaire (Goldberg, 1978) was employed. Data analysis was conducted using independent t-tests and multivariate analysis of variance (MANOVA). The findings revealed a significant difference in sports medicine usage and its subscales between athletes and non-athletes ($p < 0.05$). The Levine test was applied to assess variance homogeneity, and the results indicated no significant variance in the total score of sports medicine usage ($p \geq 0.05$), justifying the use of the independent t-test. Analysis of the total sports medicine usage scores showed a significant difference, with non-athletes scoring higher than athletes ($t(2, 762) = 9.46, p < 0.05$). Sample characteristics are outlined in Table 1. For both groups, the mean age was approximately 26 years, with educational attainment and family income levels distributed similarly. The effect of group differences on dependent variables was significant, as demonstrated by MANOVA results. Further analysis indicated a substantial difference between athletes and non-athletes in the somatic symptoms subscale ($F = 88.71, df = 1, p < 0.05$).

Keywords: Sports Medicine, Athletes, Non-Athletes, Physical Fitness and Health.

FUNCTIONAL IMPROVEMENTS IN COLLEGE WOMEN THROUGH INTEGRATED YOGIC AND CROSS FIT TRAINING

***Dr. N. Kodeeswaran.**, Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.

****Dr. G. Meenatchi.**, Assistant Professor, Selvam College of Physical Education, Namakkal, Tamil Nadu.

ABSTRACT

Women's work is often assumed to be solely the realm of women, and it is associated with specific stereotypical jobs that have been associated with the feminine sex throughout history. It is most commonly used in reference to the unpaid labor that a mother or wife performs in the home and family. Women's work is generally unpaid or paid less than "men's work" and is not as highly valued as "men's work". Women's lack of access to higher education had effectively excluded them from the practice of well-paid and high status occupations. Conditioning with yoga is one of the best methods to improve post-exercise recovery, speed up healing process and reduce muscle stiffness. Regular yoga practice helps to build up flexibility and strength, where regular brisk walking is being proven to enhance your cardiovascular system and enhance mood. Practicing a few yoga poses after a workout helps lengthen and stretch your muscles, keeping you balanced, flexible and walking for miles. We often focus on stretching our lower body after a walk or run, but the repetitive motion of swinging our arms can tighten our chest and shoulders. In order to assess the real facts, the investigator made an attempt to examine the impact of yogic practice after brisk walking over Physiological variables of thirty college women were selected from Coimbatore district. They were age ranged between 20 to 25 years. Treatment group I underwent cross fit training after yogic practice, group II acted as control group. All thirty subjects were inducted for pre and posttest on Physiological variables are (Breath holding time, Resting Pulse rate). The cross fit training after continues brisk walking was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of six weeks. The control group was not given any sort of training except their routine work. The Physiological variables breath holding time (breath holding test) Resting Pulse rate was assessed by bio-monitor were assessed before and after training period. The result from 't' test and inferred that 8 weeks cross fit training after yogic practice treatment produced identical changes over physiological variables of college women. Further, the findings confirmed the cross fit training after yogic practice is suitable protocol to bring out the desirable changes over physiological, variables of college women.

Key words: Cross fit Training, Yoga Practice, Physiological and College women.

ANALYZE THE LONG TERM BENEFITS OF BOTH TRAINING METHODS ON PHYSICAL PERFORMANCE IN SCHOOL LEVEL KABADDI ATHLETES

***Sri. N. Dinakaran.,** Research scholar, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu, India.

ABSTRACT

Sports and games are the integral part of every child in their school and college life. Physical fitness is considered a measure of the body's ability to function efficiently, effectively and without injury in work and leisure activities, to pursue recreational activities and to cope with emergency situations. Skill-related fitness includes components such as agility, balance, coordination, reaction time, power and speed. Tabata training is a High-Intensity Interval Training (HIIT) program that has been scientifically proven to help increase endurance and aerobic and anaerobic power systems. Sports and games are the integral part of every child in their school and college life. The interest in outdoor activity is reduced due to the development of technology. Today the entire world is in front of the computer without any type same time, few of the population of the world involves in games and sports to entertain themselves of physical activity. At the end to keep their body fit and healthy. Tabata training is a High-Intensity Interval Training (HIIT) program that has been scientifically proven to help increase endurance and aerobic and anaerobic power systems (Izumi Tabata 1990). To achieve the purpose of this study was to find out the analyze the long term benefits of both training methods on physical performance in school level kabaddi athletes. To achieve the purpose forty-five school boy's kabaddi players were selected in the age group of 14-17 years. The subjects were divided in to three groups randomly 15 in each group. Experimental group I participated in game specific with tabata training. Experimental group II participated in game specific with resistance training. Experimental group III is Control group. Two experimental groups underwent training for a period of 12 weeks. The subjects were tested on motor performance component of linear speed. The analysis of covariance was used to find out the significant difference if any, among the experimental groups and control group 'F' ratios were computed to find the variation in the groups. The 't' ratio was applied to find out the significant improvement in all the variables of groups. In all the cases, 0.05 level of confidence was fixed to test the significance which was considered as appropriate. In the proposed study ANCOVA were applied to interpret the effect of tabata training and resistance training on motor performance component among school level kabaddi players. Thus the results obtained proved that the training on linear speed produced significant improvements among the experimental groups.

Keyword: *Tabata training and resistance training and speed.*

EFFECT OF TABA TRAINING ON SELECTED PHYSICAL AND PHYSIOLOGICAL VARIABLES OF SCHOOL LEVEL KABADDI PLAYERS

*Dr. K. Vellimalai, Director of Physical Education, SNS College of Engineering, Coimbatore.

ABSTRACT

Man is being known as bracket together in tending maneuver living things. He's respond to his atmosphere by possessing capability want throw physical movement. Throughout movement he's rely upon his skeletal muscle, his nervous systems, his vascular system and lots of different a part of the body. All parts of his body area unit item dependent upon movement for his or her continuing vigor, health and development. Physical activity is one amongst varied factors that influence the expansion and developments by children's and adolescents. It's of the utmost important to understand the physiological mechanism that sustains act because the, basic of everyone response to exercises. Within the course of work up variety of co-ordinates and counteractive changes manifest itself throughout the body. It's the overall agreement that endurance advantages to health in respect of fascinating body compositions need the incorporation of habituate physical activity from bracket together in tending maneuver early age. The purpose of the study was to investigate effect of tabata training on selected physical and physiological variables of school level kabaddi players. A total of 60(N-60) school students aged between 14 and 17 years were selected from D.G Higher Secondary School, Seeliyer and SRSI Higher Secondary School, Karamadai. The subjects were divided into two groups such as experimental and control group. The experimental group was asked to take part in tabata training for six weeks. After consulting experts in the field and also going through the available literature on the subject the following physical and physiological variables were selected for this study. Such as endurance, agility and physiological variable Breath holding capacity. The analysis of data revealed that the training programme showed significant changes in some selected variables in endurance, agility and Breath holding capacity due to six weeks of training programme for tabata training.

Key Word: Endurance, Agility and Breath Holding Capacity.

THE EFFECT OF TRX EXERCISE WITH THERA TUBE ON THROWING ABILITY AMONG INTER COLLEGIATE WOMEN BASKETBALL PLAYERS

*P. Neelavathi, Research Scholar, Department of physical Education, PSGR Kirshnammal College for Women, Bharathiar University, Coimbatore, Tamil Nadu, India.

**Dr. M. Jayachira, Director of Physical Education, Department of physical Education, PSGR Kirshnammal college for women, Bharathiar University, Coimbatore, Tamil Nadu, India.

ABSTRACT

Basketball has progress to be a world-wide-game. It is international popular and universally accepted. It is one of the most strenuous and thrilling game and it demands a high degree of physical fitness, speed and endurance. In reality basketball is a highly is a highly organized game with recognized system of play comparable to other game. Basketball is probably the leading ball game in the world as far as action occupancy is concerned. In modern sports, basketball had advanced scientifically to approach that from to time to produce the best performance from the players of varying calibre's within the prescribed period and with available facilities. TRX exercise is a form of suspension training that uses body weight exercises to develop strength, balance, flexibility and core stability simultaneously. TRX strap is a good tool to help both beginners to advanced practitioners get more closely in touch with their bodies and explore different types of exercise. "For someone who has never done exercise or is newer to yoga, there are tons of ways to use the strap to learn how to engage in the right places," TRX strap can introduce more exercise into your practice, as it assists you in safely working toward challenging exercise like inversions, arm balances and backbends that may seem scary or complex in a normal training. The purpose of this study was to investigate the effect of TRX exercises with their tube on throwing ability among Inter-Collegiate Women Basketball players. To achieve the purpose of the study twenty (N=20) women Basketball players were randomly selected. The age group of the subject was 18 to 23 years. Selected subjects were equally divided into two groups an experimental group and a control group. Control group was not given any type of training. Experimental group was given TRX exercise with their tube for a period of six weeks. The pre-test and post-test data on Throwing ability was collected on both the groups before and after the experimental training collected data and the scores were meticulously recorded. Statistical analysis was performed with a predetermined level of significance set at 0.05 confidences. It was concluded that experimental group TRX exercise with their tube group significantly ($p \leq 0.05$) improved the Throwing ability when compared to control group of the Inter-Collegiate Women Basketball players.

Keywords: TRX exercise, Thera tube, Throwing ability and Basketball players.

IMPACT OF DIFFERENT TRAINING REGIMENS ON HIGH ALTITUDE PERFORMANCE IN SPECIFIC SOCCER SKILLS AMONG NILGIRIS PLAYERS

***Mr R. Ravichandran.**, Research Scholar, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.

****Dr. S. Ramesh Kumar**, Director of Physical Education, SRMV College of Arts and Science, Coimbatore.

ABSTRACT

Plyometric are exercises that involve a jumping or explosive movement. For example, skipping, bounding, jumping rope, hopping, lunges, jump squats, and clap push-ups are all examples of plyometric exercises. Resistance Training is any exercise that causes the muscles to contract against an external resistance with the expectation of increases in strength, tone, mass, and endurance. The subjects underwent their respective training programme as per schedules under the supervision of researcher who provided motivation, advice and encouragement to the subjects. Each day the training schedule was conducted for experimental groups only in the morning session. That lasted for sixty minutes. Prior and after every training session subjects of experimental groups had ten minutes of warm up and ten minutes of warm down exercises. The purpose of the study was forty-five Nilgiris District level football players were selected for this study and they were given Plyometric and Resistance training. pre-test was conducted for the subjects in the selected specific skill performance variables. After twelve weeks of plyometric, and resistance training post test data were collected for the variables. To test the significant changes made from the base line to post-test due plyometric and resistance training group, 't' test was applied. The significance of the means of the obtained test results was tested at 0.05 level of confidence. The collected data have been processed by using Analysis of covariance to determine, if there was any significant difference among the treatment means of each variable. When "F" ratio showed significant differences between treatment means, Scheffe's post hoc test was applied to test the significance of difference between the paired means at 0.05 level of confidence. The data was analysed by using the software SPSS. Practice of the resistance training and plyometric training was significant effective in bring desirable changes in skill performance variables such as dribbling shooting among district level football players.

Key Words: Resistance training and Plyometric training

A STUDY ON THE EFFECTS OF SPECIFIC PERIODIZED AND TRADITIONAL TRAINING APPROACHES ON POWER VARIABLES AMONG FEMALE BASKETBALL PLAYERS

***K. Dhayan.,** Research Scholar, Department of Physical Education, RVS College of Arts and Science College, Coimbatore, Tamil Nadu, India.

****Dr. E. Sathya.,** Director of Physical Education, RVS College of Arts and Science College, Coimbatore, Tamil Nadu, India.

ABSTRACT

Sports concerns to any form of physical activity. Sports activities establish the qualities of discipline which help in every field of life. Traditional training typically refers to a more consistent, steady approach to physical conditioning, often characterized by routines that maintain a similar intensity, volume, and exercise selection over time. Unlike periodized training, which varies these factors based on specific goals and phases, traditional training tends to focus on consistent progress or maintenance in fitness, strength, or skill without major changes to the program structure. The purpose of this study was to investigate the effect of specific periodized training and traditional training on selected power variable in female basketball players. A total of 60 female basketball players, aged 18–25 years, were selected as subjects and divided into three groups: specific periodized training group (SPTG), traditional training group (TTG), and a control group (CG), with 20 players in each group. The training interventions were conducted over a period of 12 weeks. The physical fitness variables assessed on vertical jump. Pre- and post-test measurements were taken for all variables using standardized tests. The specific periodized training program involved a systematic progression of training intensity and volume, focusing on basketball-specific drills and strength training. The traditional training program emphasized general physical conditioning and fundamental skill practice. The control group did not participate in any structured training during the study period. Results of the study revealed that both SPTG and TTG showed significant improvements in physical fitness and skill performance variables compared to the control group. However, the specific periodized training group demonstrated a greater enhancement in explosive power, agility, shooting accuracy, and dribbling performance compared to the traditional training group. This indicates that a periodized training approach, tailored to the demands of basketball, is more effective in improving both physical and skill performance variables in female basketball players. In conclusion, specific periodized training can be recommended as a superior method for optimizing the performance of female basketball players compared to traditional training methods.

Keywords: *Specific periodized training, traditional training, physical fitness, skill performance, basketball players, female athletes.*

INFLUENCE OF CONTRAST TRAINING ON PHYSICAL PERFORMANCE VARIABLES AMONG HOCKEY PLAYERS

* **Dr. V. Balasubramanian.**, Head & Assistant Professor, Department of Physical Education, Sudharsan College of Arts and Science, Perumanadu, Pudukkottai.

ABSTRACT

Sports science plays a critical role in Field Hockey performance. The game Field Hockey is a team based sport and it demands number of external and internal factors like anthropometrical, physical, physiological and psychological characteristics to play the game at elite level. The role of sports science in Field Hockey is elaborated here as follows. In recent years, field hockey has evolved and become faster paced and more physically. The strength and conditioning training programs objective is to improve the physical fitness characteristics for players in any sport and all trainers are seeking to increase the level of performance for fitness components such as strength, speed and the ability of change directions. These are the hockey stick and the playing surface. Advances in stick construction, over the past decade in particular, have allowed players to reach greater levels of ball control and have also increased their hitting power. The purpose of this study was to find out the impact of contrast training on selected physical, physiological variables among Hockey players. To achieve the purpose of the study, forty-five (n=45) male inter-collegiate level Hockey players were selected from the Mother Teresa Educational Institutions in Pudukkottai. The age of subjects ranged from 18 to 25 years. The subjects had past experience of at least four years in Hockey and only those who represented their respective college teams were taken as subjects. All the subjects were informed about the nature of the study and there was obtained to co-operate till the end of the experiment and testing period. Experimental Group-I underwent contrast training respectively. The control group was not exposed to any specific training /conditioning programme. The experimental treatment namely contrast training was administrated for a duration of 12 weeks and the number of session per week was confined to three alternative days and each session lasted 60 minutes, in addition to the regular schedule of the Hockey training. The Physical fitness variables were selected in speed. The data collected data from the three groups prior to and immediately after the training programme on the selected criterion variables were statistically analysed with dependent 't' test and Analysis of Covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, Scheffe's post hoc test was followed, as a post hoc test to determine which of the paired mean differences was significant. The findings of the study showed that there was a statistically significant improvement in the physical fitness variables speed as compared to control group.

Keywords: contrast training and speed.

IMPACT OF FUNCTIONAL ACTIVITY ON SELECTED HEALTH RELATED PHYSICAL FITNESS AND PHYSICAL FITNESS VARIABLES AMONG COLLEGE STUDENTS

***Dr. G. T. Selvaganesh.,** Assistant Director, Department of Physical Education, Vellore Institute of Technology (VIT), Chennai, Tamil Nadu, India.

****Lt. Balamurali PM.,** Deputy Director of Physical Education, Vellore Institute of Technology (VIT), Chennai, Tamil Nadu, India.

ABSTRACT

The college phase is a transformative period in a young adult's life, marked by significant physical, mental, and social changes. Amidst academic pursuits and lifestyle adjustments, maintaining physical fitness often becomes a challenge for students. Functional activities, characterized by dynamic and practical movements that mimic real-life tasks, have emerged as an effective approach to enhance overall health and physical fitness. Health-related physical fitness focuses on components such as cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. These components are critical for students' well-being, as they directly influence their ability to cope with physical and mental demands. Integrating functional activity into their routines can bridge the gap between sedentary academic lifestyles and the need for regular physical exercise. This study examines the impact of functional activity practices on selected health-related physical fitness and physical fitness variables, specifically cardiovascular endurance, balance, and muscular endurance, among college students. By investigating these relationships, the research aims to provide evidence for the role of functional activities in fostering a healthier and more active student population. This study explores the impact of functional activities on specific health-related physical fitness components and physical fitness variables among college students. Key findings reveal a significant relationship between functional activities and improvements in physical fitness levels during college life. The research demonstrates that functional activity practices lead to notable enhancements in cardiovascular endurance, balance, and muscular endurance among college students. Furthermore, a statistically significant difference was observed in these variables, emphasizing the positive influence of functional activity practices on overall physical fitness.

Keywords: *Functional Activity, Health, Physical Fitness and College Students.*

SPEED, AGILITY AND QUICKNESS TRAINING: A REVIEW

***Dr. R. Petchimuthu.,** Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.

****Mr. M. Muthuvarasan, Mr. S. Nagarajan & Ms. M. Sabiya, M.P.Ed.,** Student, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.

ABSTRACT

Sports have become an integral part of human life, be it a competitive or recreational sport. In both sports, the level of competition has reached a point where it is very important for an athlete to improve their performance. Injury prevention is also a priority at different competition levels. Various techniques are used in the literature to improve the performance of the athlete. A good rehabilitation program must be prepared based on the specific physiological requirements of each sport. It should focus on improving skills and strategies to prevent injury to the athlete. Most sports today involve skills such as agility, speed, strength, balance and reaction time. Speed is the ability and skill required to achieve high movement speed. Agility is the ability to change speed, direction and response to stimuli. Speed includes aspects of both speed and agility, but also includes strength, neuromuscular coordination and flexibility, allowing an athlete to move at higher speeds. Reaction time is the time interval between any stimulus and the onset of a motor response. Speed, Agility and Quickness Training (SAQ), a type of progressive skill-based training, helps develop the neuromuscular system by improving motor skills and body functions. SAQ an acronym for 'speed, agility and quickness' is the title of a system patented by a company called 'SAQ International', which works in the UK with top football teams like the Rugby Football Union and West Ham United, and internationally with the likes of the Miami Dolphins American Football team and the New South Wales Waratahs rugby team in Australia. Speed, agility and quickness (SAQ) aims at the developing motor abilities and the control of body movement and developing the neuromuscular system. The primary purpose of the SAQ training is to develop the rate of force production, the response to stimuli, improve the velocity of movement and prevent injuries. Speed, Agility and Quickness Training (SAQ), a type of progressive skill-based training, helps develop the neuromuscular system by improving motor skills and body functions. It is becoming a popular training method and is used by physical therapists, strength and conditioning specialists and many trainers. The main goal of SAQ training is to develop speed of force production, response to stimuli, improve movement speed and prevent injury. It has been proven effective in improving agility, speed, acceleration and explosiveness in sports such as football, badminton and cricket players.

Keywords: *Speed, agility, quickness and athlete.*

INFLUENCE OF CORE STABILITY EXERCISE ON CORE STRENGTH FLEXIBILITY AND CORE STRENGTH ENDURANCE AMONG KABADDI MEN

***S. Dinesh Philip Vinoth.,** Scholar, St. John's College of Physical Education, Veeravanallur, Tirunelveli.

****Dr. J. Karthikeyan.,** Assistant Professor, Dept. of Physical Education Health Education and Sports, The M.D.T. Hindu College, Pettai, Tirunelveli.

ABSTRACT

Physical fitness implies the ability to function at once best level of efficiency in all his daily living. Physical fitness is an instrument for social goods is the capacity to successfully respond physically, mentally and emotionally to the forces of life without undue debilitations physical fitness in one of the facts of persons all round harmonious development. It is one of those rare games, which demands not only speed but also agility, strength, power and endurance. Exercise is physical activity perform repetitively to develop or maintain fitness; fitness is the capacity to perform physical activity. Exercise comes in many forms and can vary in intensity. The purpose of the study was to find out the Influence of core stability exercise on core strength, flexibility and core strength endurance among kabaddi men. To achieve this purpose of the study twenty-four men players were selected from the St. John's College of Physical Education, Veeravanallur, Tirunelveli and their age ranged from 18 to 24 years. for this study. The age of the subject was ranged from 18 to 24 years. The selected subjects were assigned at random into two group of 12 subjects each (N=12) group1 underwent core stability exercise training for six week and three days per week. Group2 acted as control group. However, control group was not exposed to any specific training but they participated in the regular schedule. The present study was undertaken primarily to assess the core stability exercise on core strength, flexibility and core strength endurance among adolescence men. The collected data from all the two groups were statistically analysis. To find out the significant improvement between the pre and post-test means dependent t test was used as statistical techniques. To find out significant adjusted post-test difference among the group. Analysis of covariance (ANCOVA) was used. As the two groups were involved, whenever the f-ratio was found to be significant. In all cases the criterion for statistical significance was at 0.05level was fixed. The experimental group namely core stability training group have achieved significant improvement on core strength, flexibility and core strength endurance when compared to control group. Significant differences were found between core stability training and control group towards improving the selected variables such as core strength, flexibility and core strength endurance.

Key Words: core stability exercise, flexibility and core strength endurance.

EFFECT OF MEDICINE BALL TRAINING ON CORE STRENGTH AMONG ADOLESCENTS

*Dr. G. Kanagaraj., Assistant Professor, Department of Physical Education & Sports, Manonmaniam Sundaranar University, Tirunelveli.

ABSTRACT

Regular participation in a medicine ball training programme has the potential to positively influence many health and fitness measures. Medicine ball training can be used to enhance muscle strength, muscle power, flexibility, endurance, coordination, agility, balance and speed. The medicine ball is a very versatile tool, which comes in various weights and sizes, to improve your strength and athleticism. It looks like a ball often soft and can conform to your body but it is weighted: sometimes it comes with handles, making it easy to hold on to as you exercise. Medicine ball training is one of the many components in an individual's routine. Medicine ball exercises promote variety by introducing a novel stimulus for physiological adaptation. Medicine balls are designed to be thrown, unlike dumbbells and barbells that will most likely get damaged if you drop them, medicine balls are resilient and allow you to throw them around while training your body to be powerful and explosive: exercises involving tossing and catching the ball are typically classified as a plyometric exercise. The purpose of the study was to find out the effect of medicine ball training on core strength among adolescent. To achieve this purpose of the study twenty-four men players were selected from the gov. hr. sec. school, Gangaikondan Tirunelveli district for this study. The age of the subject was ranged from 14-17 years. The selected subjects were assigned at random into two group of 12 subjects each (N=12) group1 underwent medicine ball training for six weak and three days per week. Group2 acted as control group. However, control group was not exposed to any specific training but they participated in the regular schedule. The present study was undertaken primarily to assess the core strength and core stability training on medicine ball is the variable. The collected data from all the two groups were statistically analysis. To find out the significant improvement between the pre and post-test means dependent t test was used as statistical techniques. To find out significant adjusted post-test difference among the group. Analysis of covariance (ANCOVA) was used. As the two groups were involved, whenever the f-ratio was found to be significant. In all cases the criterion for statistical significance was at 0.05level was fixed. The experimental group namely medicine ball training has achieved significant improvement on core strength, core stability when compared to control group. Significant differences were found between medicine ball training and control group towards improving the selected variables such as core strength and core stability.

Key Word: Core Strength and Medicine Ball Training.

EFFECT OF CIRCUIT TRAINING ON HEART RATE AMONG COLLEGE MEN ATHLETES

***Dr. P. Manikandan.**, Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu.

****Dr. M. Syed Ali.**, Director of Physical Education, Sadakathullah Appa College, Palayamkottai, Tirunelveli.

ABSTRACT

The physical and physiological variables considered as the fundamental important in the training process upon which the training elements are completed, where achieving levels of performance associates with possession of levels of physical and physiological abilities by the player that is significantly related to skills and tactical performance (Khataiba, A.Z., 1996) Numerous training methods were developed to promote the level of performance, Circuit training method is one of the most recent methods for the team games. A Circuit exercise are known as changing speed or speed play, discriminates for other methods that its work can be conducted in a similar feature to performance time during the games. Moreover, Circuit exercise considered as one of the most important training methods that work on developing the player's aerobic and anaerobic capacities. The purpose of the present study was to investigate the effect of circuit training on heart rate among college men athletes. To achieve the purpose of the study thirty college men athletes were selected from Department of Physical Education, M. S. University, Tirunelveli during the year 2024. The subject's age ranges from 22 to 24 years. The selected players were divided into two equal groups consists of 15 men athletes each namely experimental group and control group. The experimental group underwent circuit training programme for six weeks. The control group was not taking part in any training during the course of the study. Heart rate was taken as criterion variable in this study. The selected subjects were tested on heart rate was measured through the palpation method is at wrist (radial artery). Pre-test was taken before the training period and post- test was measured immediately after the six-week training period. Statistical Technique 't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to circuit training given to the experimental group on heart rate when compared to control group.

Keywords: *Circuit training and Heart rate.*

APPLIED SPORT COACHING

*Dr. M. Sathish., Assistant Director, Department of Physical Education, Dr. MGR Fisheries College and Research Institute, Thanjavur.

INTRODUCTION

Applied Sport Coaching is a dynamic and multifaceted field that bridges theory and practice to optimize athlete development and performance. This paper examines the core principles and methodologies employed by sports coaches across diverse disciplines. It explores how effective coaching strategies, communication, and leadership styles influence training regimens, team dynamics, and individual athlete growth. Additionally, the integration of sports science, psychology, and performance analytics into coaching practices is discussed, highlighting the role of technology in refining athletic performance. The research concludes by proposing future directions for the evolution of coaching practices, emphasizing a holistic and evidence-based approach that supports both athlete well-being and achievement. This paper delves into the practical applications of sports coaching, emphasizing the skills, knowledge, and strategies required to maximize athlete potential. Through an exploration of applied coaching techniques, the paper examines how coaches employ tactical decision-making, athlete assessment, and feedback mechanisms to drive performance. The role of sports science in understanding athlete physiology and the integration of psychological aspects into coaching are also discussed. Finally, the paper looks toward the future of sports coaching, considering technological innovations and new educational methodologies that are reshaping the landscape of coaching practices. Coaching is the development or training in which an individual, coach, supports the learner in attaining specific professional or personal goals. In the discipline of sports, Sports Coaching refers to the process of guiding, motivating and training individuals in their preparation for a sporting hobby, sporting event or sporting career (American Psychological Society & Association for Psychological Science 1992, 49). Individuals and teams hire the services of a sports coach in several scenarios. In the event that one wishes to start playing a sporting activity, a sports coach comes in handy to impart the basic skills of the particular sport. Likewise, sports coaching helps individuals and teams improve and enhance their skills in a particular sporting activity that they are already part of. Sports Coaching has helped and will continue to aid athletes to advance their professional levels in their respective sporting events. Famous world-class athletes such as footballers and basketball players would never have attained the same level of professional efficacy had it not been for the services of sports coaching (Association for Psychological Science 1992, 37). Sports Coaching helps athletes attain professional excellence that they would not attain on their own.

Keywords: Sport Coaching, coaching strategies, communication and leadership.

GRAPH THEORY AND AI TRANSFORMING TEAM DYNAMICS AND STRATEGY OPTIMIZATION IN SPORTS

***Mr. B Prem Anand.**, Physical Director, IFET College of Engineering, IFET Nagar, Gangarampalayam, Villupuram - 605108.

****Dr. J. Suresh.**, Director of Physical Education, KG College of Arts and Science, Saravanampatti, Coimbatore.

ABSTRACT

Along with refreshment, sports events are very important for peace of mind, healthy life, and enjoyment. Various skills polished through competitive sports can be employed in practical life for achieving one's goals. In today's modern technological world, artificial intelligence and machine learning (ML) based techniques are implemented in almost every step of modern life. They are very helpful in increasing productivity while reducing humans' efforts and time. For accurate training and high performance of athletes, different IoT grounded smart sensors can be used. The causes of severe injuries in sports can result in both physical and financial harm has surveyed various ML grounded techniques for predicting and preventing injuries in sports. Based on the ML methodologies, various effective procedures have been applied in sports for the efficient prevention of injuries along with the identification of players at greater risk of harm. The sports industry is gaining popularity with time and all the countries are investing a lot of money for fame and entertainment around the world. To ensure the high quality of sports, modern techniques such as machine learning (ML), artificial intelligence (AI) and the Internet of Things (IoT) are playing a very optimistic role. Various IoT-grounded smart sensors are implemented with integration in AI and ML for the safety and high performance of the players. Based on the numerous applications of modern technologies, it is very convenient to capture different body movements of the players and avoid any severe injuries and long-term health issues. AI and IoT-driven smart devices are revolutionizing the analysis of athletes' training and performance, offering precise insights for their improvement. This article delved into the remarkable strides made in scientific sports, highlighting how computer-based elements are reshaping the sports landscape for athletes and spectators alike. These innovations enable real-time health monitoring, prevent accidents, capture diverse postures and analyze sporting outcomes. By extensively reviewing existing literature, key features have been identified and prioritized. Using the graph theory matrix approach (GTMA), this piece compared and ranks available alternatives based on these selected features. Moreover, the parameter matrix and normalized matrix were reported in tabulated form and the ranks for ten paradigms are illustrated graphically for better visualization.

Keywords: *Technology; Artificial Intelligence; Scientific Sports; Postures; Fall Events.*

IMPACT OF FUNCTIONAL FITNESS TRAINING WITH YOGIC PRACTICES ON SELECTED FUNCTIONAL VARIABLES OF COLLEGE WOMEN

***G. P. Jyothibrindha.**, Research Scholar, Department of Physical Education, Tamil Nadu Physical Education and Sports University.

****Dr. S. Jayakumar.**, Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University.

ABSTRACT

Functional fitness training, combined with yoga, offers a holistic approach to physical health, especially for college women. This integration enhances strength, flexibility, endurance, and mental well-being, which are critical for managing the stresses and physical demands of academic life. Functional fitness focuses on exercises that simulate everyday movements, improving core strength, balance, and coordination, while yoga adds elements of mindfulness, relaxation, and increased mobility. For college women, who often face long hours of study and irregular activity patterns, this blend of physical training can mitigate the risk of injury, improve posture, and reduce stress. Furthermore, the mental clarity gained through yoga complements the energy and physical resilience fostered by functional fitness, creating a balanced lifestyle that supports both academic performance and overall health. The purpose of the study was to investigate the effect of functional fitness training with yogic practices on selected functional variables of college women. Thirty out of players were randomly selected from TNPESU Chennai, the selected college women were divided into two groups consisting of 15 players. No attempt was made equate the groups. The age of the subjects ranged between 18 to 23 years. The influence of the functional fitness training with yogic practices was assessed on selected variables. The training load was increased from the maximum working capacity of the subject doing pilot study. The duration of the training period was restricted to eight weeks and the number of sessions per week was confined to three. The data obtained from all the groups before and after the experimental period were statistically analyzed by dependent 't' test to find out the significant improvement if any, 0.05 level of confidence was fixed to the level of significance between pre and post-test means of all groups. Pre and post test was conducted on separate days with warm up. The vo2 max measured by cooper vo2 mx test in ml/kg/lit, resting pulse rate measured by bio monitor in seconds. Further, the findings confirmed the functional fitness training with yogic practices is suitable protocol to bring out the desirable changes over the vo2 max and resting pulse rate of college women.

Key Words: *Functional Fitness Training with Yogic Practices, College Women, Vo2 max and Resting Pulse Rate.*

THE ROLE OF VARIED TRAINING CAPSULES IN ENHANCING SELECTED PHYSICAL CHARACTERISTICS AMONG COLLEGE WOMEN KABADDI PLAYERS

*Dr. G. Kalpana, Director of Physical Education, St. Joseph's College for Women, Tirupur.

ABSTRACT

Sports training or coaching is the process of preparation of sportsmen based on scientific and pedagogical principles aims at improving and maintenance of higher performance capacity. Coaching may be defined as a technical skill that involves the coordination of factors like time, sequence, action, movement, speed, education and improvement of mental capabilities, improvement of tactical efficiency, and acquisition of motor skills improvement of physical fitness. The main aim of sports training is to prepare a sportsman for the highest possible performance in the main competition in a particular sport/event. Besides this following should be considered as the aims of sports training. Tabata is a type of HIIT-one subsection under the broad umbrella of high-intensity interval training. Specifically, it's a four-minute workout consisting of 8 rounds of 20 seconds of work at maximum effort, followed by 10 seconds of rest. Tabata training is a high-intensity interval training (HIIT) method that consists of short, intense bursts of exercise followed by brief periods of rest or lower-intensity activity. Kabaddi is a dynamic sport requiring a unique blend of physical strength, endurance, agility, and strategic skills. The effectiveness of training regimens in optimizing performance can significantly impact athletes' physical and physiological parameters. This study aims to evaluate the influence of different training capsules on selected physical variables among college-level women Kabaddi players. A total of 60 college-level women Kabaddi players were randomly assigned to three distinct training groups: (1) tabata training, (2) resistance training, and (3) a combined training regimen incorporating both endurance and speed components. The training programs were administered over a period of 8 weeks. Pre- and post-intervention assessments were conducted to measure physical variables such as speed. The results indicated significant improvements in physical fitness variables across all training groups. The combined training regimen showed the most pronounced effects, with notable enhancements in speed. Conclusion: Varied training capsules significantly influence the physical fitness variables of college-level women Kabaddi players. The combined training regimen was found to be most effective in improving overall athletic performance. These findings suggest that incorporating a balanced approach to training could optimize performance and physical fitness outcomes of speed for Kabaddi players.

Key Words: Kabaddi, physical variables, speed training regimens, women kabaddi players.

IMPACT OF SURYANAMASKAR WITH KRIYA PRACTICES ON SELECTED MOTOR FITNESS COMPONENTS AMONG INTER COLLEGIATE MALE ATHLETS

***Dr. S. V. Shivagumar.,** Director of Physical Education, Ambai Arts College, Ambasamudram, Tirunelveli.

****Dr. R. Petchimuthu.,** Assistant Professor, Department of Physical Education and Sports, Manonmaniam Sundaranar University, Tirunelveli.

ABSTRACT

Good health is the right of every human being. But this right depends on individual, social and environmental factors. Along with environmental or social factors to a large extent, we can develop a better immune system and a better perception of oneself so that other conditions do not affect us adversely and we can achieve good health. Surya Namaskar is not a mere sequence of Asanas. It combines body movement with breath and awareness. Kriyas are the yogic techniques to cleanse the internal organs. According to Hatha Yoga Pradipika, there are six cleansing techniques called Shat Kriyas. They are Kapalabhati, Trataka, Neti, Dhouti, Nauli and Vasti. Shat means "six" and kriya means "cleansing". Yogic kriya remove the waste materials of our internal organs which are not expelled normally. Therefore, the aims of Hatha Yoga and of the Shatkriyas are to cleanse the internal organs and thereby create harmony between the major pranic flows, Ida and pingala, and attaining physical and mental purification and balance. The purpose of the study was to impact of Suryanamaskar with Kriya Practices on Selected Motor Fitness Components among Inter Collegiate Male Athletes, a total of 20 students' from manonmaniam Sundaranar University, Tirunelveli were selected as subjects and their Age ranged between 20-23 years. They were divided into experimental and control group randomly, after the pre-and post-test the subject (N-20) was randomly assigned into two equal groups of 10 athletes each. The group were assigned as experimental group and control group. The experimental group underwent suryanamaskar with Kriya practice for a period of eight weeks. The post tests were conducted on the above said variables. The training programme was schedule as 6.00 am-7.00am for three alternative days in a week, the data collected from the two group namely suryanamaskar with Kriya practices group and control group on selected motor components were statistically analyzed by using T ratio in order to determinate the difference if any among the group at pre-post-test. The calculated T ratio is tested for significant at 0.05 level of confident, Suryanamaskar with Kriya practice had significantly developed the speed, agility, flexibility, balance of the inter collegiate Male athletes

Key Words: *Suryanamaskar, Kriya, Motor fitness.*

INDIVIDUALIZED EFFECT AND COMPARED EFFECT OF VARIOUS MUSCLE SPECIFIC RESISTANCE TRAINING ON SELECTED PHYSIOLOGICAL AND PSYCHOLOGICAL VARIABLES AMONG INTER COLLEGIATE HOCKEY PLAYERS

***B. Suresh.**, Assistant Professor, Department of Physical Education, Aditya University, Surampalem, Andhra Pradesh.

****N. Sankara Rao.**, Assistant Professor, Department of Physical Education, Aditya College of Engineering & Technology, Surampalem. Andhra Pradesh.

*****M. Tejeswara Rao.**, Assistant Professor, Department of Physical Education, Aditya University, Surampalem, Andhra Pradesh.

ABSTRACT

As the goal of resistance training, the ASMI says, is to “gradually and progressively overload the musculoskeletal system so it gets stronger. According to Keith Cinea, any fitness programme should include resistance training, along with aerobic exercise and flexibility training. Aerobic workouts, which strengthen the cardiovascular system, focus primarily on the large muscle groups of the lower body. Strength training offers a way of balancing that out by challenging all the major muscle groups, including those in the chest, arms, back and abdomen. According to medical research, generally the resistance training strengthens the muscular system, strengthens the skeletal system, and improves bone density and increases metabolism. So a well -planned resistance training program should be a part of everyone’s health, fitness and lifestyle regardless of age, gender or goals. The study was to find out the individualized effect and compared effect of various muscle specific resistance training on selected physiological and psychological variables among inter-collegiate hockey players. For this purpose, sixty intercollegiate hockey players were selected from participants of district level inter-collegiate tournament. The subject’s age ranged from 18 to 25 years and was selected. The subjects were divided into two equal groups of thirty each. Group-I underwent Various Muscle Specific Resistance Training Group (VMSRTG), Group – II acted as control group. The duration of the training period was restricted to twelve weeks and the number of sessions per week was confined to three. The data obtained from all the groups before and after the experimental period were statistically analyzed by dependent ‘t’ test to find out the significant improvement between pre and post-test means of all groups. Analysis of Co-Variance (ANCOVA) was applied to determine whether the programmes of training produced significant improvements in selected variables after twelve weeks of training. After twelve weeks of various muscle specific resistances training the experimental group showed significant improvement on the selected physiological and psychological variables.

Keywords: *Muscle specific resistance training, physiological and psychological variables.*

EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES OF INTER COLLEGIATE KABADDI PLAYERS

***Dr. N. Ravi**, Head of the Department, Department of Physical Education, Aditya University, Surampalem, Andhra Pradesh.

****Dr. Gawri Sankara Prasad.**, Principal, Sri Venkateswara College of Physical Education, Srikakulam, Andhra Pradesh.

ABSTRACT

Kabaddi is aptly known as the “Games of The mass” due to its popularity, simple, easy to comprehend rules and public appeal. The game calls for no supplicated equipment what so ever, which it very popular sport in the developing countries. The duration of the game if 40 minutes for men & junior boys with a 5 minutes break in between for the teams to change sides in the case of women/girls & sub-junior boys, the duration of 30 minutes with a 5-minute break in between Kabaddi is a combative team game, played with absolutely no equipment, in a rectangular court, either outdoors with seven players on the ground in each side. Each side takes ultimate chances at offence and defense. The word ‘Yoga’ itself comes from a Sanskrit word meaning ‘Yoke’ or ‘union’. It conveys the idea of harnessing oneself to a discipline and at the same time of unifying the part of the self, body, mind and spirit and the individual self with something greater and transcendent, a concept which may be expressed as God, the Absolute, the Greater self, the universal flow of life and so on, according to one’s religious and philosophical stance. Yoga is an art, a science and a philosophy. It touches the life of man at every level- physical, mental and spiritual. It is a practical method for making one’s life purposeful, useful and noble. The study was to find out the effect of yogic practices on selected physiological variables of intercollegiate kabaddi players. For this purpose, forty men intercollegiate kabaddi players were selected from Ramakrishna Mission Vivekananda University, Coimbatore. The subject’s age ranged from 18 to 25 years and were selected by true random group design. They were divided into 2 group’s namely experimental group and control group. Each group consisting of 20 subjects. The experimental group underwent yogic practices for a period of six weeks and subjects were tested before and after the training programme. Standardized tests were used to test the selected variables. The data were analyzed statistically by using paired t ratio in order to find out the significant differences between the pre-test and post test scores. After six weeks of yogic practices the experimental group showed significant improvement on the selected physiological variables namely heart rate and systolic blood pressure and Diastolic blood pressure.

Key Words: Heart rate and Systolic blood pressure and Diastolic blood pressure.

COMPARATIVE ANALYSIS OF POSTURAL DEFORMITIES BETWEEN SCHOOL BOYS PARTICIPATING AND NON- PARTICIPATING IN SPORTS ACTIVITIES

*Dr. V. Vasudeva Rao., Sports Officer, IIT Madras, Chennai, Tamil Nadu.

ABSTRACT

In humans, posture can provide a significant amount of important information through nonverbal communication. Psychological studies have also demonstrated the effects of body posture on emotions. This research can be traced back to Charles Darwin's studies of emotion and movement in humans and animals. Currently, many studies have shown that certain patterns of body movements are indicative of specific emotions. Researchers studied sign language and found that even non-sign language users can determine emotions from only hand movements. Another example is the fact that anger is characterized by forward whole body movement. The theories that guide research in this field are the self-validation or perception theory and the embodied emotion theory. Poor posture is the posture that results from certain muscles tightening up or shortening while others lengthen and become weak which often occurs as a result of one's daily activities. There are different factors which can impact on posture and they include occupational activities and biomechanical factors such as force and repetition. Risk factors for poor posture also include psychosocial factors such as job stress and strain. Workers who have higher job stress are more likely to develop neck and shoulder symptoms. Studies have shown that drivers of trucks and public transport vehicles are at a greater risk of lower back and neck pain syndromes as well as other musculoskeletal disorders than clerical workers, partly because of their poor sitting posture and lack of breaks. The purpose of the study was to find out the Comparative Analysis of Postural Deformities between School Boys participating and Non-participating in Sports Activities. To achieve the purpose of the study, 300 School boys' (150 Sports Activities boys and 150 Non-participate Sports Activities boys) students were selected as subjects randomly from Tirunelveli District, Tamilnadu. The age of the subjects was ranged from 8-13 years. The following variables were being chosen to analysis the posture in Side view 3 parts only they are Neck, Chest, Shoulder. The experimental procedure for this study was static group comparison design. The data collected from the two groups on selected variables such as posture were statistically examined for significant differences, if any applying the Descriptive Statistics. There was significant difference on posture between school boys participating and non-participating in sports activities. School Boys participating person had good posture compared to nonparticipation in sports activities.

Key Words: Psychological, posture and emotion.

THE PARENTAL ASSISTANCE IN RELATION TO PERSONALITY TRAITS AMONG WOMEN SPORTS PLAYERS

***Varanasi Janardhana.**, Research Scholar, Department of Physical Education and Sports, Manonmaniam Sundaranar university, Tirunelveli, Tamil Nadu.

ABSTRACT

Sport has a very prominent role in modern society. It is important to an individual, a group, a nation indeed to the whole world. Sport is an institutionalized competitive activity that involves vigorous physical exertion or the use of relatively complex physical skills by individuals whose participation is motivated by a combination of the intrinsic satisfaction associated with the activity itself and external rewards earned through participation. The essential component of sport is competition, the striving to achieve a prescribed goal. This competition must be under rules and standardized conditions. Youth sports provide an opportunity for parents and children to form an emotional bond. Research by Dorsch, Smith and McDonough (6) found that parents experienced many changes in their behaviour, cognition, affect, and general parent -child relationship as a result of their child's participation in youth sports. Similarly, a child's perceived quality of the parent-child relationship has been shown to be a predictor of a child's enjoyment and experience while playing the sport (12-13, 16). Parents play a large role in the sport experience of their children (10). In fact, parents have been shown to have the largest impact compared to peers, teachers, and coaches. The purpose of the study was to analysis the parental assistance in relation to personality traits among women sports players. To achieve the purpose forty-five (n=45) female students were randomly selected from Rani Anna women's Arts & Science College in Tirunelveli district, Tamilnadu and their age ranged from 20-25 years. Following variables were selected namely: Parental assistance, Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness. Collected data were statistically analyzed by using ANOVA. From the analysis following conclusions were drawn. It's concluded that women's participating in sports with over control, Indifference and Abuse parents are no difference in Neuroticism. It's concluded that women's participating in sports with over control, Indifference and Abuse parents are no difference in Extroversion. It's concluded that women's participating in sports with over control, Indifference and Abuse parents are no difference in Openness. It's concluded that women's participating in sports with over control, Indifference and Abuse parents are no difference in Agreeableness. It's concluded that women's participating in sports with over control, Indifference and Abuse parents are no difference in Conscientiousness.

Key Words: physical, personality traits, Parental assistance, Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness

THE ROLE OF INTERVAL TRAINING IN ENHANCING FITNESS VARIABLES AMONG MALE FOOTBALL PLAYERS

***Dr. N. Savitha.**, Director of Physical Education, Chikkaiah Naicker College, Erode, Bharathair University, Coimbatore, Tamil Nadu, India

****Dr. A. Telma Priya.**, Physical Director, Thiagarajar College of Preceptors, Teppakulam Madurai, Tamil Nadu, India.

ABSTRACT

Various training regimens are commonly employed to enhance an athlete's power and work output. In activities such as sprinting, jumping, or throwing, an athlete's ability to accelerate their own body, an opponent, or an object is critical to performance. Interval training is one such method, consisting of alternating periods of low- to high-intensity exercise, combined with rest or recovery intervals. The high-intensity segments typically push the athlete toward anaerobic exertion, while the recovery periods involve lower-intensity activities. This structured approach helps improve overall performance in sports. The purpose of this study was to examine the impact of interval training on selected fitness variables among football players. A total of thirty football players from schools in Erode district, aged 14 to 16 years, were randomly selected as subjects. The participants were divided into two groups: an interval training group and a control group. Group A, the interval training group, underwent an eight-week training program consisting of two sessions per week, while Group B, the control group, continued with their regular daily routine without any additional training. The fitness variables assessed in the study were speed and power, measured using the 50-yard dash and vertical jump tests, respectively. Data were collected from each participant both before and after the training period. The results were analyzed using the dependent t-test to evaluate the significant improvements in the selected fitness variables within each group. Additionally, Analysis of Covariance (ANCOVA) was employed to determine the significant differences between the experimental and control groups for each variable. The level of confidence for testing the hypotheses was set at 0.05. The findings revealed that the interval training group showed significant improvements in speed and power. Moreover, there was a significant difference between the interval training group and the control group in terms of the selected fitness variables.

Keywords: Interval, Speed, power and football players.

INFLUENCE OF PLYOMETRIC AND TRADITIONAL TRAINING ON SELECTED POWER PERFORMANCE VARIABLE AMONG SCHOOL LEVEL HANDBALL PLAYERS

***R. Ranjith Rajesh**, Research Scholar, Department of Physical Education, Kongu Arts and Science College, Erode, Coimbatore, Tamilnadu, India.

****Dr. A. Sankar**, Research Supervisor, Department of Physical Education, Kongu Arts and Science College, Erode, Coimbatore, Tamilnadu, India.

ABSTRACT

Handball is a fast-paced, dynamic sport that requires a combination of speed, leg explosive power, power, and technical skills. As one of the most popular team sports worldwide, it demands players to exhibit high levels of physical fitness and athleticism to excel on the court. Given the multifaceted nature of the game, training programs aimed at enhancing performance among handball players often incorporate a variety of methods targeting different aspects of physical conditioning. Influence of plyometric and traditional training on selected power performance variables among school level handball players. To achieve the purpose of the study, forty-five (n=45) school boys handball players were randomly selected from the Bangalore District inter – school handball players, Bangalore, Karnataka, India during the year 2023-2024. The age of subjects ranged between 15-17 years. The subjects were divided in to Three groups randomly 15 in each group. experimental group I (Plyometric training group), experimental group II (traditional training group) and control group III they were not participated in any specific training. Two experimental groups underwent training for a period of 8 weeks. The subjects were tested on selected on power performance related variables namely explosive strength of school level boys handball players. The analysis of covariance was used to find out the significant difference if any, among the experimental group and control group 'F' ratio were computed to the variation on the groups. The 't' ratio was applied to find out the significant improvement in all the variables of 't' groups. In all the cases, 0.05 level of confidence was fixed to test the significant improvement which was considered as appropriate. Statistically significant improvements in baseline scores in fitness variables of explosive strength comparable between the one group of school boys' players. Leg explosive strength improved by 2.37, 2.26 and 2.17 in the control group. Additional research on long-duration intervention in elite players may help to establish the role of plyometric training and traditional training in conventional handball skills for plyometric training. Additional research on long-duration intervention in elite players may help to establish the role of plyometric training and traditional training in conventional handball skills for sports training.

Key Words: *plyometric, traditional, explosive strength and handball.*

INVESTIGATE THE IMPACT OF REGULAR YOGIC PRACTICES ON ENHANCING FLEXIBILITY AND MUSCULAR STRENGTH

***Dr. S. Varalakshmy.,** Director of Physical Education Government Arts and Science College Thiruvannainallur.

ABSTRACT

Aerobic training, often referred to as cardiovascular or endurance training, involves prolonged physical activities that elevate the heart rate and enhance the efficiency of the cardiovascular system. Regular aerobic training not only strengthens the heart and lungs but also aids in weight management, boosts mood, and promotes overall health by reducing the risk of chronic diseases. Yogic practices encompass a holistic approach to physical, mental, and spiritual well-being, originating from ancient Indian traditions. These practices include a variety of techniques such as asanas, pranayama, meditation, and mindfulness, all aimed at fostering balance and harmony within the body and mind. By integrating physical movement with breath awareness and mental focus, yogic practices promote flexibility, strength, and relaxation, while also reducing stress and enhancing mental clarity. With their emphasis on self-awareness and personal growth, these practices not only cultivate a deeper connection to oneself but also encourage a greater sense of peace and resilience in everyday life. The purpose of the study was to find out the investigate the impact of regular yogic practices on enhancing flexibility and muscular strength. Forty-five college women selected from Government Arts and Science College, Thiruvannainallur, Tamil Nadu, India were selected randomly as subjects. The age of the subjects ranged from 17 to 25 years. The selected subjects were divided into two groups. Group I underwent aerobic training, Group II underwent yogic practices and Group III acted as control. The experimental groups were subjected to the aerobic training and yogic practices for six days for eight weeks. The aerobic training and yogic practice was selected as independent variable and the criterion variables flexibility and muscular strength were selected as dependent variables and the selected dependent variables were assessed by the standardized test items. Flexibility was assessed by sit and reach test and the unit of measurement in centimeters and muscular strength was assessed by sit-ups test and the unit of measurement in Numbers. The experimental design selected for this study was pre and post-test randomized design. The data were collected from each subject before and after the training period and statistically analyzed by using dependent 't' test and analysis of covariance (ANCOVA). It was found that there was a significant improvement and significant different exist due to the effect of aerobic training and yogic practices on flexibility and muscular strength.

Keywords: - Aerobic Training, Yogic Practices, Flexibility and Muscular Strength.

EFFECTS OF PRE SEASON STRENGTH TRAINING AND PLYOMETRIC TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES OF MALE INTER COLLEGIATE VOLLEYBALL PLAYERS

*Dr. V. Karthik Raja., Physical Director, Amrita School of Agricultural Sciences, Coimbatore.

ABSTRACT

Sports have become as competitive as other fields in the world. In ancient times, our ancestors exhibited the extraordinary talents in terms of physical activity. But now it has become completely professional. Somehow or other irrespective of age the human race is involved in different kinds of sports either for recreation or competition. In the present world, Sports have become extremely competitive. It is not mere participation or practice that makes an individual victorious. Sports life is affected by various factors like physiology, biomechanics, sports training, sports medicine, sociology and coaching, computer application and psychology and so on. The purpose of the present study, 90 players were selected as samples from Anna University affiliated colleges, Coimbatore District in the year of 2019 - 2020. Finally, sixty men volleyball players were randomly selected as subjects for the present study. They were divided into three groups. Each group consists of 20 subjects. Group -I Pre-Season Strength Training Group (PSTG), Group - II Pre-Season Plyometric Training Group (PPTG) and Group - III control group (CG). The ages of subjects were ranged from 18-25. In the present study are significant source to maintain the skill performance variables is physical fitness variables is speed. The present study pays attention mainly on testing the means of three groups (two experimental and one control) and secondarily deals with the increase of means in each group from baseline to post treatment for various measures. The statistical tools used are the analysis of co-variance was applied. To determine whether the training programmes produced significantly different improvements in selected variables after 12 weeks of training the analysis of covariance was used. The result of this study indicates that there is insignificant difference in speed among players of volleyball game. The hypothesis of this study stated that there would be significant difference in serving ability among players of volleyball game. From the result of this study it is observed that there is significant improvement in all the variables.

Keywords: Pre-season strength and speed.

EXPLORING THE INFLUENCE OF HIGH-INTENSITY INTERVAL TRAINING ON PSYCHOPHYSIOLOGICAL ASPECTS OF COLLEGE LEVEL WOMEN PLAYERS

***Dr. Faiza Banu N.**, Director of Physical Education, JBAS College for Women, Chennai.

****Dr. M. Jayachira**, Director of Physical Education, Department of physical Education, PSGR Kirshnammal college for women, Coimbatore, Tamil Nadu, India.

ABSTRACT

Interval training has been used for decades by elite athletes and players seeking to improve their sports performance. Thus, high-intensity exercise was shown to extensively recruit the aerobic energy-supplying system, resulting in the increased maximal oxygen uptake that is the most reliable factor for endurance. HIIT is an important part of the training in team sports, there is still a need for an alternative, more sport-specific approach containing important basketball components, such as dribbling and shooting. A similar physiological load can be obtained in HIIT by using a soccer dribbling track instead of solely running. Sanchez et al. have shown significant improvements in aerobic performance after implementing a specific high-intensity training with various change of directions (COD) in female basketball athletes. In addition to these findings, this paper focuses on the sport-specific approach of a HIIT using basketball drills, which include specific movements with the ball. Furthermore, multiple changes of direction were included in the drills. Handball is a strenuous contact team sport that involves highly demanding intermittent actions, such as sprinting, jumping, short accelerations and decelerations, blocking, pushing, and throwing, interrupted by a short period of low-intensity activities. This study investigated the impact of high intensity interval training on aerobic capacity and self-confidence on college level women players. To achieve the purpose of the study 40 women players were selected from JBAS college for women Chennai. The subjects were randomly assigned to two equal groups (n=20). Group-I underwent high intensity interval training (HIIT) and group-II was acted as control group (CG). The high intensity interval training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of twelve weeks. The control group was not given any sort of training except their routine work. The motor fitness variables of aerobic capacity (Cooper 12 minutes run or walk) and self-confidence (questionnaires Basavanna (1975) self-confidence test) before and after training period. The data collected from the subjects was statistically analysed with 't' test to find out significant improvement if any at 0.05 level of confidence. The result of the present high intensity interval training significantly improved aerobic capacity and self-confidence of college level women players.

Keywords: High intensity interval training, aerobic capacity, self-confidence

EFFECTIVENESS OF RESISTANCE AND YOGA TRAINING ON SELECTED FITNESS VARIABLES AMONG COLLEGE LEVEL HOCKEY PLAYERS

***Dr. S. Mohan.,** Physical Director, Arulmigu Vaazhathottathu Ayyan Temple School, Samalapuram, Tiruppur, Tamil Nadu, India.

Dr. A. Praveen Kumar, Asst. Professor in physical education, Vikrama Simhapuri University, Nellore. Andhra Pradesh.

ABSTRACT

Resistance training aims to enhance physical performance by improving strength, power, and endurance. one of the primary goals of resistance training is to help the body recruit a broader range of muscle fibers, particularly under conditions of fatigue. In theory, resistance training begins with an isometric exercise that fatigues the muscle fibers typically engaged in a specific movement. This is immediately followed by a sport-specific resistance movement, requiring the recruitment of additional muscle fibers to complete the task. Over time, this approach results in improved neuromuscular efficiency, enabling athletes to perform better in activities like jumping or sprinting. Most studies on resistance training span between 4 to 8 weeks, focusing on performance indicators such as vertical jump height and sprinting speed. Resistance training methods often include variations such as combining isometric and ballistic exercises to maximize muscle fiber recruitment and neuromuscular activation. Yoga promotes harmony between the mind, body, and soul, helping athletes develop greater self-awareness and control over their physical and mental states. By aligning the body's movements and breathing patterns, yoga not only enhances physical fitness but also fosters a sense of inner peace and balance, making it an effective complementary practice for athletes. The purpose of this study was to examine the effectiveness of resistance training and yoga training on selected fitness variables among college-level hockey players. A total of 45 hockey players, aged 18 to 25 years, were selected from Mohamed Sathak Engineering College, Keelakarai, Ramnad, Tamil Nadu, India. These participants were randomly divided into three equal groups, each consisting of 15 players: Experimental Group I, Experimental Group II, and a Control Group. Experimental Group I underwent an 8-week resistance training program, while Experimental Group II participated in an 8-week yoga training program. The Control Group did not engage in any specific training regimen. Pre-test and post-test measurements were taken for all groups before and after the training programs. Analysis of Covariance (ANCOVA) was used to analyze the data, and Scheffé's post hoc test was applied to identify the significant differences between the groups. The findings revealed that both resistance training and yoga training groups showed significant improvements compared to the control group. Additionally, there was a significant difference in the effectiveness of resistance training compared to yoga training.

Dr. A. Praveen Kumar, Asst. Professor in physical education, Vikrama Simhapuri University, Nellore. Andhra Pradesh. Keywords: Resistance Training, Physical Fitness, Hockey, Yoga.

EFFECTS OF STRENGTH AND CIRCUIT TRAINING REGIMENS ON SCHOOL LEVEL FOOTBALL PLAYERS PHYSICAL AND PHYSIOLOGICAL DEVELOPMENT

***Potu Raju Muddada.**, Research Scholar, Kongu Nadu Arts and Science College, Coimbatore, Tamil Nadu.

****Dr. S. Saraboji.**, Principal Adithya College of Physical Education, Rajahmundry Andhra Pradesh.

ABSTRACT

Strength training is important for athletes across all sports but for football players, it's a prerequisite for safe competition. The physicality of football means that athletes, especially young athletes, must be structurally strong and conditioned to compete safely. If one of your players shows up under-prepared, his safety and your team's chance of success is at risk. The good news is that most football programs have adopted some system of strength and conditioning to prepare their players. The importance of strength training for athletes, particularly in football, is well-documented, as it ensures safe competition and reduces the risk of injury. This study aimed to assess the effects of strength training and circuit training on selected physical fitness variables, specifically explosive power among school-level football players. The sample consisted of 60 male intercollegiate football players, aged 15-18, randomly selected from Visakhapatnam district, Andhra Pradesh. The participants were divided into three groups: Strength Training Group (STG), Circuit Training Group (CTG), and Control Group (CG), with 20 players in each group. A periodized training program was implemented for both the STG and CTG over 12 weeks. Statistical analysis, using Analysis of Covariance (ANCOVA), was performed to evaluate differences in physical fitness variables across the groups. The results revealed no significant differences in between the groups. However, there was a significant improvement in explosive power among players in both the strength and circuit training groups. This study highlights the potential benefits of strength and circuit training in enhancing certain physical attributes of football players, while also suggesting areas for further investigation in the development of training protocols for young athletes.

Keywords: *Strength training, circuit training, explosive power, cardiorespiratory endurance, football players, periodized training, ANCOVA.*

ASSESSING THE IMPACT OF STRENGTH AND PLYOMETRIC TRAINING ON PHYSICAL FITNESS VARIABLES IN COLLEGE VOLLEYBALL PLAYERS

***Boya Sreenivasulu.,** Research Scholar, Kongu Nadu Arts and Science College, Coimbatore, Tamil Nadu, India.

**** Dr P.K Kavithashri.,** Director of Physical Education, Kongu Nadu Arts and Science College, Coimbatore, Tamil Nadu, India.

ABSTRACT

Strength training is important for athletes across all sports but for football players, it's a prerequisite for safe competition. The physicality of football means that athletes, especially young athletes, must be structurally strong and conditioned to compete safely. If one of your players shows up under-prepared, his safety and your team's chance of success is at risk. The good news is that most football programs have adopted some system of strength and conditioning to prepare their players. But the currently training the players on a periodized strength training program, designed by a certified strength coach for the specific demands of football, you might not be doing enough to reduce your athletes' risk of injury. This study aimed to investigate the effects of strength training and plyometric training on selected physical fitness variables specifically, leg explosive power and shoulder muscular strength among inter-collegiate male volleyball players. The study was conducted with 60 male volleyball players (ages 18-25) enrolled in the physical education course at Aditya College of Physical Education, Bobbili, Andhra Pradesh. The players were randomly assigned to three groups: Group I (Strength Training Group, STG), Group II (Plyometric Training Group, PTG), and Group III (Control Group, CG), with 20 participants in each group. The training program lasted for 12 weeks, and the effectiveness of the interventions was evaluated by comparing pre- and post-treatment measures of leg explosive power and shoulder muscular strength. The statistical analysis was conducted using the analysis of covariance (ANCOVA) to determine whether the training programs produced significantly different improvements in these physical fitness variables. The results of the study revealed no significant difference in leg explosive power and shoulder muscular strength among the groups, contrary to the initial hypothesis that expected a significant difference. These findings suggest that, in this study, strength and plyometric training did not lead to substantial improvements in the targeted physical fitness measures for volleyball players.

Keyword: strength and plyometric training and Shoulder Muscular Strength.

THE INFLUENCE OF HIGH-INTENSITY INTERVAL AND PLYOMETRIC TRAINING ON MOTOR FITNESS AND PSYCHOLOGICAL OUTCOMES AMONG COLLEGIATE WOMEN PLAYERS

*Mrs. M. Santhi., Research Scholar, Department of Physical Education, Tamil Nadu, Physical Education and Sports University, Chennai.

**Dr. C. Lakshmanan., Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.

ABSTRACT

Performance in sports and games depends on physical and mental abilities, as body and mind, both have an equal contribution in human success. As Aristotle and John Locke, both great thinkers, have said that the body is the temple of the soul, to reach harmony of the body, mind and spirit the body must be physically fit and also sound mind in a sound body. In today's competitive sports world, the strife to reach the top and outmatch each other has heightened. Every aspect that contributes towards the excellence of a player, is carefully looked in and one such aspect is the selection of the right person for the right event in sports and games. Hence, even though the right to choose is reserved for the player, players without knowing their inherent potential end up making the wrong choices and find it difficult to reach the top of the ladder in the sports arena. The performance in sports relies heavily on both physical and mental abilities, as the body and mind work in tandem to achieve success. In the competitive world of sports, it is crucial to make informed decisions about the selection of athletes for specific events. The purpose of this study was to examine the impact of High-Intensity Interval Training (HIIT) and High-Intensity Plyometric Training (HIPT) on motor fitness and psychological outcomes among collegiate women athletes. The study employed a true random group design with a pre-test and post-test approach. Sixty female college players from Aruppukottai, Tamil Nadu, India, aged 18 to 25 years, were randomly assigned to three groups: Experimental Group I (HIIT), Experimental Group II (HIPT), and a Control Group (CG). Over a 12-week period, the experimental groups underwent their respective training protocols, while the control group continued with their regular activities. Pre-test and post-test measurements were taken for selected motor fitness, physiological, and psychological variables. Data were analyzed using Analysis of Covariance (ANCOVA), with Scheffe's post hoc test applied where necessary. Results indicated that both the HIIT and HIPT groups showed significant improvements in motor fitness and psychological variables compared to the control group. These findings suggest that both HIIT and HIPT are effective training methods for enhancing physical and mental performance in collegiate women athletes.

Key words: High-intensity interval, Plyometric training, motor fitness and psychological.

EFFECT OF SMALL SIDED HANDBALL TRAINING ON SKILL RELATED PERFORMANCE VARIABLES OF JUNIOR MALE PLAYERS

*Dr. S. Udhayakumar., Physical Director, Sri Ramaswamy Naidu Vidyalayam. Hr. Sec. School, Lakshiminaickenpalayam.

ABSTRACT

Handball is a one of the fastest game in the world. It is very popularity games in India. Handball is a one of the body conduct game. It is relatively rapid learning of this game, based on natural human motion, has allowed it to be popularized quickly. The development of the game is also influenced by attractive actions and direct conflict with an opponent. It is good physical preparation of a player. When competitors playing handball all the body's muscles are used in a game. Body motions and all the joints of upper and lower limbs work develops and improves their range of motion. The handball game is not only influenced by physical fitness. It is performed and generated by thinking. It is involving both aerobic and anaerobic activities. Handball is recognized as one of the fastest and most physically demanding sports in the world, gaining significant popularity in India. This fast-paced game engages all the body's muscles, enhancing physical fitness and improving joint mobility. Handball involves both aerobic and anaerobic activities, requiring not only physical stamina but also strategic thinking. The purpose of this study was to examine the effect of small-sided handball training on skill-related performance variables in junior male handball players. A total of 15 male players aged 12 to 14 years from Sri Ramaswamy Naidu Vidyalayam Hr Sec School, Lakshiminaickenpalayam, were selected for the study. The training protocol, conducted over six weeks, focused on skills such as passing, dribbling, throwing, shooting, and game play, with each session lasting 45 minutes. Pre-test and post-test assessments were conducted using the Ginn handball test to measure front shot, speed pass, and accuracy throw performance. A paired t-test was used to analyze the differences between pre-test and post-test results, with a significance level set at 0.05. The findings indicated significant improvements in front shot, speed pass, and accuracy throw performance after the six-week training period, suggesting that small-sided handball training is effective in enhancing skill-related performance variables in junior players.

Key words: Handball training, speed pass, front shot and accuracy throw.

EFFECTS OF CIRCUIT TRAINING ON PHYSICAL AND PHYSIOLOGICAL PARAMETERS IN INTER COLLEGIATE LEVEL VOLLEYBALL PLAYERS

***Dr. N. Alavuthen Basha.,** Physical Director, Department of Physical Education, Presidency University Yelahanka, Bangalore.

ABSTRACT

Volleyball is a team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team court under organized rules. It has been a part of the official program of the Summer Olympic Games since 1964. The rally continues, with each team allowed as many as three consecutive touches, until either (1) a team makes a kill, grounding the ball on the opponent court and winning the rally; or (2) a team commits a fault and loses the rally. The team that wins the rally is awarded a point, and serves the ball to start the next rally. Circuit training is a form of body conditioning or resistance training using high-intensity aerobics. It targets strength building and muscular endurance. An exercise & quota; circuit & quota; is one completion of all prescribed exercises in the program. When one circuit is complete, one begins the first exercise again for the next circuit. Traditionally, the time between exercises in circuit training is short, often with rapid movement to the next exercise. The term & quota; circuit training & quota; describes the way a workout is structured rather than the type of exercise performed. It typically consists of a series of exercises or stations completed in succession with minimal rest in between. Circuit routines allow the athlete or coach to create an endless number of workouts and add variety to routine training programs. Circuit training is a type of exercise program where one does a series of timed exercises at a fairly rapid pace, with a brief period of rest in between each exercise. This study was investigated the effects of circuit training on physical and physiological parameters in intercollegiate level volleyball players. To achieve the purpose of the study 40 volleyball players were selected from Cheran group of institutions, Coimbatore. The subjects were randomly assigned to two equal groups (n=20). Group- I underwent circuit training group (CTG) and group - II was acted as control group (CG). The circuit training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of twelve weeks. The control group was not given any sort of training except their routine work. The physical fitness variables of flexibility (sit and reach test) agility (4x10 meter shuttle run) and Physiological variable Vo2 max (Queen College step test) before and after training period. The data collected from the subjects was statistically analysed with 't' test to find out significant improvement if any at 0.05 level of confidence. The result of the present circuit training significantly improved flexibility agility and Vo2 max of volleyball players.

Keywords: Circuit training, Flexibility, Agility and Vo2 max.

PLYOMETRIC AND CIRCUIT TRAINING EFFECTS ON SELECTED FOOTBALL SKILL PERFORMANCE VARIABLES

***N. Dhinesh Raj.**, Research Scholar, Department of Physical Education, Periyar University, Salem, Tamilnadu, India.

****Dr. P. Senthilkumar.**, Director of Physical Education, Government Arts and Science College, Harur, Tamilnadu, India.

*****K. Venkatachalam.**, Director of Physical Education, Periyar University, Salem, Tamil Nadu, India.

ABSTRACT

Plyometrics are power improvement workouts designed specifically for athletes and advanced exercisers who have a well-conditioned body. Training with this mode of exercise increase muscular strength and improve a specific skill whether it is to jump higher, jump longer, throw farther or hit harder. Systematic plyometric exercises follow a specific pattern of muscle contractions. These exercises use movements that develop the ability to generate a large amount of force quickly. The most common exercises from ordinary exercisers for this type are jumping rope, jumping jacks, throwing and catching ball on wall, and boxing with a punching bag. Circuit training is also a convenient way to exercise. It maximizes the total exercise volume completed in a period of time. Exercises are completed in a row, and therefore, the time spent exercising is condensed. The purpose of the study was to find out the effect of plyometric training and circuit training on selected skill performance variables among football players. To achieve the purpose of the present study, forty-five football players from Hosur district, Tamilnadu, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into three equal groups of fifteen subjects each. Group I acted as Experimental Group I (Plyometric training), Group II acted as Experimental Group II (Circuit training) and Group III acted as Control Group. The duration of experimental period was 12 weeks. After the experimental treatment, all the forty-five subjects were tested on their physical variables. This final test scores formed as post test scores of the subjects. The pre-test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses. It was observed that the twelve weeks of plyometric training and circuit training have significantly improved the selected skill performance variables among football players than the control group.

Keywords: Plyometric, Circuit, Football.

OPTIMIZING PHYSIOLOGICAL PERFORMANCE IN COLLEGE FOOTBALL PLAYERS THROUGH PLYOMETRIC CORE AND GAME SPECIFIC TRAINING

*Dr. R. Anitha., Director of Physical Education, Periyar University, Constitution College of Arts and Science, Idappadi, Salem, Tamil Nadu.

ABSTRACT

Plyometric training is a specialized form of exercise designed to enhance power by combining speed and force during specific movements. It is recognized as one of the most effective methods for developing explosive strength, critical for various athletic performances. Plyometric exercises involve rapid stretching followed by the contraction of muscles, commonly referred to as the "stretch-shortening cycle" (SSC). This type of training improves the body's ability to generate maximum force in minimal time, making it a vital component of professional sports performance training. Examples of plyometric exercises include vertical jumps, broad jumps, skipping rope, jump squats, single-leg hopping, and clapping push-ups. These exercises train the body and brain to activate more muscle fibers efficiently, increasing the speed and efficiency of muscle contractions and ultimately enhancing overall performance. The purpose of this study was to investigate the effects of plyometric and core training combined with game-specific training on selected physiological variables among college male football players. A total of 45 male football players, aged 18 to 25 years, from Erode district were randomly selected as participants. The subjects were divided into three groups: Plyometric Training Group (PG), Core Training Group (CG), and a Control Group (CG), with each group comprising 15 participants. Pre- and post-intervention changes in variables were evaluated using separate linear regression models. All participants were informed about the nature of the study, and informed consent was obtained to ensure cooperation throughout the experiment. The experimental intervention involved plyometric training and core training, conducted over eight weeks with three sessions per week on alternate days. Each session lasted 60 minutes, in addition to the regular football training schedule. Detailed training regimens for plyometric and core exercises are provided in Appendices I and II. Statistically significant improvements were observed in resting heart rate among the three groups. The resting heart rate improved by 76.46 bpm in the plyometric training group, 77.40 bpm in the core training group, and 80.06 bpm in the control group. The findings suggest that additional long-term research involving elite players could help establish the roles of plyometric and core training in enhancing conventional football skills.

Keywords: *Physiological variables, Resting heart rate, Plyometric training, Core training, Football.*

HARMONIZING WELL BEING THE TRANSFORMATIVE POWER OF NADA YOGA FOR WOMEN EMPLOYEES

***Dr. S. Akilandeswari.**, Assistant Professor, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

****Dr. M. Mary Glory Ponrani.**, Assistant Professor, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

*****P. Priyadharsni.**, Research Scholar, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

ABSTRACT

In today's fast-paced professional world, employees often face multiple challenges that affect their general well-being, such as work-related stress, physical fatigue, and emotional strain. Yoga, an ancient Indian practice rooted in physical, mental, and spiritual disciplines, has been widely recognized as a means to improve overall health and manage stress. A specific branch of yoga, Nada Yoga, focuses on the use of sound vibrations and meditative listening to harmonize the body and mind. Derived from the Sanskrit word "Nada," meaning sound, this practice emphasizes the auditory experience as a pathway to achieve self-awareness and emotional balance (Khalsa et al., 2015). Despite its potential, the influence of Nada Yoga on the well-being of employees particularly women remain underexplored in academic literature, creating a research gap that this study aims to address. In the contemporary professional environment, women employees encounter significant challenges that impact their well-being, including stress, fatigue, and emotional strain. This study investigates the effects of Nada Yoga, a sound-based meditative practice, on the general well-being and anxiety levels of women employees across various professions. A sample of 27 women aged 30–45 participated in an eight-week intervention involving music classes integrated with Yoga Sadhana. The study employed pre-test and post-test assessments using the General Well-Being Scale and the DASS-21 questionnaire. Statistical analysis via paired 't' tests revealed a significant improvement in general well-being and a notable reduction in anxiety levels in the experimental group compared to the control group. The findings highlight the potential of Nada Yoga as a holistic intervention for enhancing emotional resilience and reducing workplace stress among women employees. Future research should explore long-term effects and broader applications of sound-based therapeutic interventions in professional settings.

Keywords: *Nada Yoga, General Well-Being, Anxiety Reduction, Women Employees, Sound Based Meditation.*

IMPACT OF STRENGTH AND CONDITIONING TRAINING ON SELECTED PHYSICAL, PHYSIOLOGICAL AND PSYCHOMOTOR VARIABLES AMONG COLLEGE LEVEL FAST BOWLERS

***Dr. R. Anandakumar**, Physical Training Instructor, Department of Physical Education, Govt. Arts College, Coimbatore, Coimbatore, Tamilnadu, India.

ABSTRACT

Sport is one of the striking features of twentieth century life, as evidenced by the variety and popularity of sporting events in the most diverse parts of the world. This new phenomenon in society has attracted the interest of researchers in many fields, and ever more urgently calls upon historians to contribute to a deeper understanding of sport through their knowledge of the past. Sports are an incredibly important contributor to human nature in our pacified society. Cricket is a bat-and-ball sport contested by two teams, usually of eleven players each. A cricket match is played on a grass field, roughly oval in shape, in the Centre of which is a flat strip of ground 22 yards (20.12m) long, called a pitch. At each end of the pitch is a construction of three parallel wooden stakes (known as stumps) driven vertically into the ground, with two small crosspieces (known as bails) laid across the top of them. This wooden structure is called a wicket. Sport is all forms of physical activity which, through casual or organized participation, aim to use, maintain or improve physical fitness and provide entertainment to participants. Sport may be competitive, where a winner or winners can be identified by objective means, and may require a degree of skill, especially at higher levels. To achieve the purpose of the study, forty-five male fast bowlers will be randomly selected from Sri Ramakrishna Mission Vidyalaya College of Arts and Science and Government Arts and Science College, Coimbatore. Their age of were ranged between 18 and 23 years. They were divided into four equal groups of fifteen each. Experimental group I underwent Strength and conditioning and experimental group II were underwent combined Strength and conditioning with skill training practice for a period of 8 weeks and group III were act as control group, the subjects in control group were not given any short of training programme other than their regular activity. The data collected data from the three groups prior to and immediately after the training programme on the selected criterion variables were statistically analyzed with dependent 't' test and Analysis of Covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, Scheffe's post hoc test was followed, as a post hoc test to determine which of the paired mean differences was significant.

Key words: *Physical Fitness, Strength training, Conditions training, Physiological training and Cricket.*

INFLUENCE OF CONTRAST TRAINING ON PHYSICAL AND PHYSIOLOGICAL PARAMETERS IN HOCKEY PLAYERS

***K. Mohankumar.**, Research Scholar, Department of Physical Education, Periyar University, Salem, Tamil Nadu, India.

****Dr. K. Venkatachalam.**, Director of Physical Education, Periyar University, Salem, Tamil Nadu, India.

ABSTRACT

Sports science plays a critical role in Field Hockey performance. The game Field Hockey is a team based sport and it demands number of external and internal factors like anthropometrical, physical, physiological and psychological characteristics to play the game at elite level. The role of sports science in Field Hockey is elaborated here as follows. In recent years, field hockey has evolved and become faster paced and more physically. These are the hockey stick and the playing surface. Advances in stick construction, over the past decade in particular, have allowed players to reach greater levels of ball control and have also increased their hitting power. The purpose of this study was to find out the impact of contrast training on selected physical, physiological variables among Hockey players. To achieve the purpose of the study, forty-five (n=45) male inter-collegiate level Hockey players were selected from the Mother Teresa Educational Institutions in Pudukkottai. The age of subjects ranged from 18 to 25 years. The subjects had past experience of at least four years in Hockey and only those who represented their respective college teams were taken as subjects. All the subjects were informed about the nature of the study and there was obtained to co-operate till the end of the experiment and testing period. Experimental Group-I underwent contrast training respectively. The control group was not exposed to any specific training /conditioning programme. The experimental treatment namely contrast training was administrated for a duration of 12 weeks and the number of session per week was confined to three alternative days and each session lasted 60 minutes, in addition to the regular schedule of the Hockey training. The following variables were selected namely: Physical variables Muscular Strength Physiological variables, Total lung capacity. The data collected data from the three groups prior to and immediately after the training programme on the selected criterion variables were statistically analyzed with dependent 't' test and Analysis of Covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, Scheffe's post hoc test was followed, as a post hoc test to determine which of the paired mean differences was significant.

Keywords: *Physical Fitness, Strength Training, Vital Capacity and Total lung capacity.*

EFFECT OF SPECIFIC ENDURANCE CIRCUIT TRAINING ON AEROBIC CAPACITY AND HEART RATE OF MALE BASKETBALL PLAYERS

***Dr. S. Thirumurugan.,** Director of Physical Education, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore.

ABSTRACT

Historically, team's fitness plans have been developed by coaches and trainers by modelling them after successful win-loss records. In actuality, the winning squad might have triumphed due to its superior athletes rather than its exceptional conditioning regimen. Without a doubt, using tried-and-true physiological training methods can help you plan a successful athletic conditioning program. Athletes' training plans must be optimized because ineffective conditioning causes a sports team to perform poorly and frequently lose. The purpose of the study was to evaluate the effectiveness of a basketball specific endurance circuit training on aerobic capacity and heart rate of college level male basketball players. To achieve the purpose of the study twenty-four (24) male college level basketball players were selected from Dr. SNS Rajalakshmi College Arts and Science Coimbatore. These subjects were randomly distributed into two groups namely basketball specific endurance circuit training group (N=12) and control group (N=12). The mean age of the selected players was 19.85 ± 0.67 . Aerobic capacity, resting heart rate and peak heart rate were selected as criterion variables. Aerobic capacity was measured by multistage fitness test and resting and peak heart rate was measured using polar heart rate monitor. The basketball specific endurance circuit training was administered 3 days per week for six weeks. They performed 2 minutes of work at 90 to 95% of targeted heart rate using Karvonen method. They performed 8 repetitions during first and second week, followed by 10 repetitions during third and fourth week and 12 repetitions during fifth and sixth week of training. This was followed by 2 minutes of active resting at 60 to 70% of targeted heart rate. In this study 1:1 work rest ration was followed. Both the groups were tested before and after training, the collected data was analyzed using ANCOVA. The result of the study showed that aerobic capacity, resting heart rate and peak heart rate between the groups was significant, it indicates that after adjusting pre-test scores, there was a significant difference between the two groups on post-test scores. The findings of the study show that significant increase in aerobic capacity and decrease in resting and peak heart rate. It can be concluded that basketball specific endurance circuit training is effective in improving aerobic capacity and increases the cardiovascular fitness so finale high school boys during competitive phase.

Keywords: *Endurance, Circuit training, resting heartrate, peak heartrate and aerobic capacity.*

INFLUENCE OF TABATA TRAINING ON BODY FAT PERCENTAGE AND MUSCLE MASS PERCENTAGE OF ADOLESCENT BOYS

***Surabhi Dharma Dheer.**, Research Scholar, SRMV Maruthi College of Physical Education, Coimbatore.

****Dr. E. Amudhan.**, Associate Professor, SRMV Maruthi College of Physical Education, Coimbatore.

ABSTRACT

Tabata training is a type of HIIT (high-intensity interval training). It originated in the research of Japanese scientist Dr. Izumi Tabata and his team from the National Institute of Fitness and Sports at Kagoshima Prefecture, Japan, on high-intensity exercise during the early 1990s. Tabata is a form of high-intensity interval training where you perform an exercise for 20 seconds at a maximum effort followed by 10 seconds of rest. The total time spent doing a set of Tabata is 4 minutes. Exercises included in Tabata are mostly bodyweight and require little to no equipment. Tabata workout increases cardiorespiratory endurance, improves VO₂ max, burns significant calories in a short time, and improves aerobic fitness – a study published by the Journal of Sports Science and Medicine suggested. Research has also shown that high-intensity interval training like Tabata helps reduce body fat percentage in overweight individuals so, it is great for people who want to speed up their weight loss process. The purpose of this study was to find out the influence of tabata training on body fat percentage and muscle mass percentage of adolescent boys. To execute the present study, the research investigator selected thirty (30) adolescent boys from Sri Ramakrishna Mission Vidyalaya Swami Shivananda Higher Secondary School, Periyanaickenpalayam, Coimbatore, Tamilnadu. The age group of the subjects were ranged from 13 to 16 years. The subjects were randomly divided into two equal groups namely tabata training group (TTG), and control group (CG). Each group consisted of fifteen (15) adolescent boys. The experimental group underwent the tabata training for a period of eight (8) weeks and the control group did not undergo any special training programme apart from their regular routine. The selected variables namely body fat percentage and muscle mass percentage, were selected as dependent variables of the study. Independent variable was tabata training. To determine the significant difference between the pre and post-tests the statistical procedure namely paired “t” test was applied. To test the level of significance the level of confidence was fixed at 0.05 level for the chosen variables. The analysis of the data revealed that there was a significant improvement on the selected dependent variables namely body fat percentage and muscle mass percentage by the application of hybrid training programme.

Key words: *Tabata training, body fat percentage and muscle mass percentage.*

A STUDY OF EMERGING TRENDS IN SPORTS AND LAW IN TAMIL NADU STATE

***Dr. P. Selvakumar.,** Physical Director, University College of Engineering, Thirukkuvalai

****Dr. S. Balasingh.,** Director of Physical Education, Saveetha Engineering College.

ABSTRACT

Sports and law are two crucial aspects of Modern society, and their intersection has become increasingly significant in recent times. Sports always been an essential part of the Tamil Nadu state traditions with the state growing interest in sports and the rapid expansion of the sports industry the role of law in regulating and governing sports has become increasingly important the relationship between sports and law in Tamil Nadu has evolved over the years and the emerging trends in this area have attracted the attention of scholar's police makers and sports. The study of the emerging trends in sports and law in Tamil Nadu state involve an exploration of various legal issues, such a sports governance, athlete welfare, doping, sports betting and the commercializing of sports. Sports is an integral part of Tamil Nadu state heritage. Today Tamil Nadu state significant player in the global sports industry producing world class athlete in various disciplines sports law in Tamil Nadu state has developed significantly over the years, reflecting the growing importance of sports in the state. Regulatory bodies such as the Minister of sports, sports development authority of Tamil Nadu and development of youth welfare sports development is responsible for development and administration of sports infra-structure and development of sports persons. Sports development authority of Tamil Nadu (SDAT) is the body working under the minister responsible for implementing same Tamil Nadu physical education and sports university (TNPESU) established in 2005 was Sports University by any state government of India and work on development of physical Education and sports. A crucial role in the development and administration of sports in Tamil Nadu. However, the legal frame work governing sports in Tamil Nadu has been inadequate and fragmented, leading to numerous challenges for athletes, sports Organization, and other shareholders. The need for a comprehensive legal frame work to address these challenges has become increasingly important in recent years. there are still critical issues that need to be addressed, such as the lack of transparency in sports governance and the need for effective dispute resolution mechanisms. In the coming years, sports law in Tamil Nadu is expected to continue evolving as the country seek to itself as a global sports destination. This study aims to examine the emerging trends in the intersection of sports and law in Tami Nadu state.

Key words: Sports law, Regulatory Framework of Sports law.

INFLUENCE OF FUNCTIONAL FITNESS TRAINING PROGRAM ON SELECTED BIO-MOTOR FITNESS PARAMETERS IN YOUTH GIRLS

* **Mr. Arun PJ.**, Research scholar, Annamalai University, Chidambaram.

** **Ms. Nalini B.**, Research scholar, Annamalai University, Chidambaram.

*****Mr. Bibinlal BS.**, Assistant Professor, KE College, Mannanam.

ABSTRACT

Bio-motor fitness parameters are essential components of an individual's physical fitness. These parameters contribute to athletic performance and general physical health. In youth, especially among girls, enhancing bio-motor fitness can address various developmental challenges, reduce the risk of lifestyle-related diseases, and promote active living. However, traditional fitness programs often overlook the functional aspects of movement, which are crucial for day-to-day activities and sports performance. The adolescence phase is particularly important as it lays the foundation for physical and mental well-being in adulthood. Despite the benefits of physical activity, recent trends indicate a decline in physical activity levels among youth, especially girls. Factors such as academic pressures, lack of access to sports facilities, and societal norms often limit their participation in structured physical fitness programs. As a result, there is a pressing need to design and implement training programs that are engaging, effective, and adaptable to their specific needs. This study aimed to examine the influence of functional fitness training programs on selected physiological performance parameters in young girls. A total of 30 subjects aged between 18- 21 from the Department of Agriculture, Annamalai University were divided into two groups: an experimental group (n = 25) and a control group (n =25). The experimental group participated in an 8-week functional fitness training program, while the control group followed their regular activities without any additional intervention. Data on bio-motor abilities were collected before and after the training period for both groups. For analysis of the data, paired t-test was used. The results revealed significant improvements in selected bio-motor abilities they are, cardio respiratory endurance (6.71%), muscular endurance (11.13), flexibility (16.08), and agility (14.44). The t ratio was 5.39,7.68,11.82,14.26 respectively. The control group didn't show the significant improvements. The functional fitness training program effectively enhanced the selected parameters, highlighting its potential as an intervention strategy for improving bio-motor abilities in youth girls. These findings underscore the importance of structured and targeted functional training programs in fostering better physical performance and overall health outcomes among young individuals.

Keywords: Functional fitness training, bio-motor fitness parameters, youth girls.

EFFECT OF AEROBIC EXERCISE WITH AND WITH OUT WEIGHTS ON PHYSICAL FITNESS AND RESPIRATORY PARAMETERS ON UNTRAINED MALE FOOTBALL PLAYERS

***M. Naveen Kumar.**, Research Scholar, Department of Physical Education, Annamalai University, Chidambaram.

****Dr. K Krishnasamy.**, Assistant Professor, Department of Physical Education, Cuddalore.

ABSTRACT

Aerobic exercise is widely recognized for its role in improving cardiovascular health, endurance, and overall physical fitness. It includes activities like running, cycling, and swimming, which primarily involve continuous and rhythmic movements that elevate the heart rate. For athletes, including football players, maintaining a high level of physical fitness is crucial for optimal performance on the field. Recently, there has been growing interest in understanding how combining aerobic exercise with additional resistance training, such as using weights, can influence physical fitness and respiratory parameters. While traditional aerobic exercises improve stamina and cardiovascular function, adding weights may enhance muscular strength, endurance, and overall conditioning. This study aims to explore the effects of aerobic exercise with and without weights on physical fitness and respiratory parameters in untrained male football players, as they often experience high-intensity intermittent physical demands during matches. The purpose of the present study, 45 players were selected from SVS College Puttur Andhra Pradesh in the year of 2024 – 2025. They were divided into three groups. Each group consists of 15 subjects. Group -I Aerobic Exercise with Weight, Group - II Aerobic Exercise without Weight (CTG) and Group III control group (CG). The ages of subjects were ranged from 18-25. The present study is significant source to maintain with its related physical and physiological such as Speed and VO₂max. The statistical tools used are the analysis of co-variance was applied. To determine whether the training programmes produced significantly different improvements in selected variables after 8 weeks of training the analysis of co-variance was used. The result of this study indicates that there is insignificant difference in speed and VO₂max among untrained football players. The study stated that there would be significant difference among players of football. From the result of this study it is observed that there is significant improvement in speed and VO₂max

Keyword: aerobic training speed and VO₂max.

THE ROLE AND ADVANCEMENTS OF SPORTS PSYCHOLOGY IN TAMILNADU

*B. Selvanesan., Assistant Professor, Department of Physical Education, St. Joseph's College (Arts & Science), Kovur, Chennai.

ABSTRACT

Sports psychology has emerged as a crucial discipline in enhancing athletic performance, mental well-being, and overall success in the field of sports. In Tamil Nadu, the importance of sports psychology has grown, especially in the context of rising recognition of mental health and psychological factors in sports. With Tamil Nadu producing a substantial number of talented athletes across various sports, the role of sports psychologists has become vital. Advancements in sports psychology in Tamil Nadu include the implementation of mental training programs, stress management techniques, and the application of psychological strategies for focus, resilience, and team dynamics. These developments have not only enhanced individual performances but also improved team coordination and overall sporting outcomes in state-level and national competitions. The role of sports psychology in Tamil Nadu has significantly evolved in recent years, contributing to the growth of athletes' mental fitness alongside physical training. Recent advancements include the use of cognitive-behavioral techniques, mindfulness practices, and relaxation exercises, which help athletes cope with performance anxiety, motivation issues, and recovery from injuries. This shift in focus has empowered athletes to better handle high-pressure situations, promoting both mental and physical resilience. The growing support for sports psychologists within Tamil Nadu's educational institutions and sports organizations marks a significant milestone in the development of a more holistic approach to sports training. This review explores the development of sports psychology in Tamil Nadu, focusing on its key challenges, evolution, and current state. The field was introduced in the 1980s, with significant progress made by the 1990s. Challenges included limited awareness, institutional support, and resources. However, Tamil Nadu's sports psychology has seen substantial growth, with increased recognition of mental conditioning's importance for athletic performance. Key research areas include competition psychology, exercise psychology, and physical education psychology. Notable mental training models include the comprehensive psychological development model and adversity training. The review also highlights emerging research areas such as athletes' mental health, neuro-efficiency, and exercise's role in promoting mental well-being.

Keyword: Sports Psychology, Athletic Performance, Psychological Training, Sports Psychology Advancements, Anxiety, Motivation and Focus.

UNPACKING THE SIGNIFICANCE OF SPORTS SOCIOLOGY FOR YOUNG ATHLETES

*Ms. J. Mariya., Assistant Physical Director, Loyola College, Chennai.

ABSTRACT

Sports sociology is a sub-discipline of sociology that examines the social aspects and cultural contexts of sports and physical activity. It involves the study of the relationships between sports, society, and culture, including the social structures, institutions, and interactions that shape our experiences of sports. For young athletes, sports sociology provides a valuable framework for understanding the social dynamics of sports, the impact of sports on their lives, and the ways in which they can navigate the complexities of sports culture. Sports sociology helps young athletes develop essential social skills, such as communication, teamwork, and leadership. The significance of sports sociology for young athletes cannot be overstated. Through the lens of sports sociology, young athletes can gain a deeper understanding of the social forces that shape their experiences in sports. They can learn about the ways in which social class, race, gender, and other social factors influence access to sports, sports participation, and sports outcomes. They can also develop a critical awareness of the ways in which sports culture perpetuates social inequalities and reinforces dominant ideologies. Sports participation influences young athletes' perceptions of themselves and their place in society. One of the key ways in which sports sociology can inform the experiences of young athletes is by highlighting the importance of socialization in sports. Socialization refers to the process by which individuals learn and internalize the norms, values, and behaviour of a particular group or culture. In the context of sports, socialization occurs through the interactions between athletes, coaches, and other stakeholders. Sports sociology shows that socialization is a critical factor in shaping the experiences of young athletes, influencing their motivation, self-esteem, and overall well-being. Sports sociology also examines the power dynamics and social inequality that exist within sports culture. Research has shown that young athletes from marginalized groups, such as racial and ethnic minorities, may face barriers to participation and experience discrimination within sports. Furthermore, sports sociology can promote positive outcomes for young athletes by highlighting the importance of diversity, equity, and inclusion in sports. Sports sociology shows that sports culture is often characterized by a lack of diversity, equity, and inclusion, with certain groups being marginalized or excluded from sports participation. By examining these issues critically, sports sociology can help promote positive change in sports culture, creating a more inclusive and equitable environment for all athletes.

Keyword: *Sports Sociology, Young Athletes, Sports Society, Youth Sports Culture, Social Pressure in Sports, Community and Sports Engagement.*

SWISS BALL VS LADDER TRAINING INDIVIDUAL AND COMBINED EFFECTS ON MOTOR AND PHYSIOLOGICAL FITNESS IN RURAL SCHOOL BOYS

*Dr. V. Sureshkumar., Director of Physical Education, Mohamed Sathak Engineering College, Kilakarai, Ramanathapuram, Tamil Nadu, India.

ABSTRACT

Swiss ball exercises are beneficial in strengthening the core muscles, including the abdominal and lower back muscles. These exercises help improve core stability, which plays a crucial role in protecting the lumbar spine and maintaining proper alignment of the shoulders, pelvis, and spine. Commonly referred to as an exercise ball or gym ball, the Swiss ball is primarily used for stretching and strengthening the muscles of the abdomen, groin, lower back, and upper legs. Core strength is essential for maintaining stability, which is a key factor in various sports activities. Swiss balls are inflatable and typically filled to 80-90% capacity, allowing for a variety of exercises that engage the user's ability to balance and move in sync with the ball's motion. Swiss ball core training exercises are widely recognized for their role in enhancing spinal stability and balance. They help develop strength, endurance, flexibility, and neuromuscular control, providing a cost-effective and enjoyable method to prevent lower back pain and injuries. Meanwhile, ladder training is effective in improving speed, agility, and quickness while also strengthening joints, ligaments, and tendons. Integrating agility ladder workouts into a training regimen can also contribute to enhanced cognitive function and cardiovascular fitness. This study involved 30 male high school students from rural areas, aged between 15 and 17 years. Participants were randomly assigned to three groups: Experimental Group I (Swiss Ball Training), Experimental Group II (Ladder Training), and a Control Group. Each group comprised 15 participants and underwent an 8-week training program. The selected fitness parameters, including agility and VO2 Max (a physiological variable), were assessed. Analysis of Covariance (ANCOVA) was applied to determine significant differences among the groups. The results indicated a significant improvement in strength endurance and agility in the experimental groups compared to the control group, confirmed through a "t" ratio test. Future research may explore the effects of such training programs across different age groups, genders, and various sports disciplines. Pre-training assessments were conducted before the commencement of the study, and post-training data was collected after the 8-week period.

Keywords: *Swiss Ball, Ladder Training, Physical Fitness, Motor Fitness.*

EXPLORING THE IMPACT OF DIFFERENT TRAINING REGIMENS ON EXPLOSIVE STRENGTH IN COLLEGE MALE SOCCER ATHLETES

***Dr. Devaraj N. D.,** Director and Head, Department of Physical Education, Christ Academy Institute for Advanced Studies Bangalore.

ABSTRACT

Performance in sports and games depends on physical and mental abilities, as body and mind, both have an equal contribution in human success. As Aristotle and John Locke, both great thinkers, have said that “the body is the temple of the soul, to reach harmony of the body, mind and sprint the body must be physically fit” and also “Sound mind in a sound body. In today's competitive sports world, the strife to reach the top and outmatch each other has heightened. Every aspect that contributes towards the excellence of a player, is carefully looked in and one such aspect is the selection of the right person for the right event in sports and games. Hence, even though the right to choose is reserved for the player, players without knowing their inherent potential, end up making the wrong choices and find it difficult to reach the top of the ladder in the sports arena. To determine to influence of different training packages on explosive strength in college men soccer players. Design: Experimental, randomized trial. 60 trained football players (18-25 year) were assigned to resistance training and circuit training. Participants underwent supervised progressive resistance training for 8 weeks (2–3 sessions/week) involving lower body multiple- joint exercises (heavy squats and explosive jump squats). The plyometric group performed their training using a computerized robotic engine system whereas the TRAD group performed the same resistance exercises with isotonic loading. Before and after the intervention, participants were evaluated in leg explosive power, loaded jump squats, sprint- and jump performance, body composition and muscle thickness using ultrasound measurement. Circuit training group their training using different circuit strength exercises. Similar moderate increases in leg explosive power output in the jump squats were found in both the plyometric training groups (11–17%, $P < 0.01$), whereas only the plyometric group showed improvements in leg explosive power performance (61%, $P = 0.01$) adjusted post-test mean respectively 1.70 plyometric training group 1.65 circuit training group 1.59 control group. Both modalities effectively increased maximal strength and power output, whereas plyometric training, combined with eccentric overload, improved leg explosive power performance and induced greater muscle hypertrophy than traditional training in young football players.

Key Words: *Plyometric training, circuit training, football and explosive strength.*

MAJOR ROLES OF SPORTS NUTRITION IN CRICKET ENHANCING PERFORMANCE AND RECOVERY

***Dr. P. Senthilkumar.**, Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore.

****A. Vishal.**, IInd M.P.Ed Student, SRMV Maruthi College of Physical Education, Coimbatore.

ABSTRACT

Sports nutrition is a critical component in the overall performance and well-being of cricketers, especially at the national level. Cricket, being a physically demanding sport that requires endurance, strength, and mental focus, demands precise nutritional strategies to ensure optimal performance throughout long matches. Whether it's fast bowling, batting, or fielding, the nutritional needs of cricketers must be tailored to support energy demands, aid in recovery, and prevent injuries. This paper explores the major roles of sports nutrition in cricket, focusing on key areas such as energy management, hydration, recovery, and injury prevention. Hydration is one of the most important aspects of a cricketer's nutrition strategy. During long matches in hot weather, fluid loss through sweat is substantial, leading to dehydration that can impair performance and recovery. Cricket is physically demanding, and cricketers need to focus on muscle repair and recovery post-match. Protein plays a significant role in muscle tissue repair, especially for fast bowlers who endure high-impact stress on their muscles during deliveries. Cricketers are prone to specific injuries, including stress fractures, muscle strains, and ligament tears. Nutritional strategies can help reduce the risk of injury and expedite recovery in case of injury. Sports nutrition plays a vital role in enhancing the performance, endurance, and recovery of cricketers. Cricket demands a combination of strength, agility, mental focus, and sustained energy, making precise nutritional strategies essential for optimal gameplay. This paper explores key aspects of sports nutrition, including energy management, hydration, muscle recovery, injury prevention, and mental focus. Proper carbohydrate intake fuels endurance, while proteins aid in muscle repair, and electrolytes maintain hydration balance. Nutritional timing before, during, and after matches significantly impacts performance. Additionally, micronutrients such as calcium, magnesium, and omega-3 fatty acids support injury prevention and cognitive sharpness. A well-structured diet, combined with strategic supplementation, ensures cricketers remain in peak physical and mental condition. By adopting science-backed nutritional approaches, players can enhance their stamina, reduce injury risks, and improve overall match performance, contributing to long-term success in professional cricket.

Key Words: *Sports Nutrition, Cricket Performance, Athlete Recovery, Nutrition, Hydration, Carbohydrate, Protein and Fatigue Management.*

ENHANCING CRICKET PERFORMANCE THROUGH KALARI TRAINING A HOLISTIC APPROACH TO BATTING BOWLING AND FIELDING

***Dr. P. Senthilkumar.**, Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore.

****S. Gohul Moorthi.**, IInd M.P.Ed Student, SRMV Maruthi College of Physical Education, Coimbatore.

ABSTRACT

The introduction explains that Kalari, an ancient Indian martial art, is highly beneficial for cricket players due to its focus on key physical attributes such as flexibility, strength, agility, and reflex development. Since cricket requires endurance, quick reaction time, precise body coordination, and injury resistance, incorporating Kalari training can enhance these crucial skills. The paper aims to explore how Kalari techniques can be effectively applied to batting, bowling, and fielding, helping players improve their performance, fitness, and injury prevention strategies. Essentially, it highlights Kalari as a holistic training method that can complement conventional cricket training. Kalari techniques involve dynamic stretching and full-body movements, which improve joint mobility and muscle elasticity. This increased flexibility allows for smoother and more controlled batting and bowling actions, reducing strain on muscles and joints. Kalari emphasizes bodyweight exercises, core conditioning, and resistance training, strengthening the muscles required for powerful batting strokes and bowling deliveries. Strengthening the legs and shoulders helps maintain endurance and stability. Cricket performance relies on a combination of strength, agility, flexibility, and mental focus. Kalari, an ancient Indian martial art, offers a holistic training approach that enhances these attributes, making it an effective complementary discipline for cricketers. This paper explores how Kalari techniques can be integrated into cricket training to improve batting, bowling, and fielding. Key benefits include enhanced flexibility, improved reflexes, better balance, increased strength, and injury prevention. Specific Kalari exercises aid in footwork, hand-eye coordination, shoulder conditioning, and agility, leading to superior performance on the field. Additionally, Kalari's meditative aspects boost mental resilience, helping players maintain focus under pressure. By adopting Kalari training, cricket players can refine their skills, enhance endurance, and reduce injury risks, offering a unique and comprehensive approach to athletic development.

Key Words: *Kalari Training, Batting Techniques, Bowling Techniques, Fielding Skills, Flexibility, Agility, Coordination and Balance.*

INJURY MANAGEMENT AND REHABILITATION STRATEGIES FOR PACE BOWLERS IN CRICKET A COMPREHENSIVE APPROACH

***Dr. P. Senthilkumar.,** Assistant professor, SRMV Maruthi College of Physical Education, Coimbatore.

****Sri. M. Arul Sri Vignesh.,** IInd M.P.Ed Student, SRMV Maruthi College of Physical Education, Coimbatore.

ABSTRACT

Cricket pace bowlers are highly susceptible to injuries due to the repetitive and high-impact nature of their bowling action. These injuries often affect the musculoskeletal system and can significantly impact their performance and career longevity. Understanding these injuries and their rehabilitation methods is crucial for effective recovery and injury prevention. Pace bowling in cricket is a physically demanding skill that exerts significant stress on various parts of the body. The repetitive high-impact movements involved in delivering a ball at high speeds can lead to a range of injuries. Below is a detailed report on the common injuries suffered by pace bowlers. Injuries in pace bowlers require a multidisciplinary approach involving medical professionals, physiotherapists, and coaches. Proper diagnosis, effective rehabilitation, and injury prevention strategies are essential to ensure the long-term health and performance of players at the national level. Pace bowlers in cricket are prone to injuries due to the repetitive, high-impact nature of their bowling action. Common injuries include stress fractures, rotator cuff injuries, shoulder impingement, elbow strains, knee ligament damage, ankle sprains, and muscle strains. These injuries can significantly affect a bowler's performance and career longevity. This paper explores injury management and rehabilitation strategies tailored for pace bowlers. Key rehabilitation methods include rest, physiotherapy, biomechanical corrections, strength training, and gradual return-to-play protocols. Additionally, cross-training and psychological support play a crucial role in overall recovery. A multidisciplinary approach, involving medical experts, physiotherapists, and coaches, is essential for effective injury prevention and long-term player sustainability. By implementing these strategies, pace bowlers can maintain peak performance while reducing injury risks.

Key Words: *Injury Management, Rehabilitation Strategies, Pace Bowlers, Cricket Injuries, Bowling Mechanics, Strength and Conditioning.*

EFFECT OF HIGH INTENSITY INTERVAL AND GAME SPECIFIC TRAINING ON SKILL RELATED PERFORMANCE VARIABLE AMONG SCHOOL LEVEL HANDBALL PLAYERS

***Dr. N. Ashok Kumar.,** Physical Director, Cheran Vidhyalaya Mat. Hr. Sec. School, Kalikkampatti, Dindigul.

****Dr. A. Sankar.,** Director of Physical Education, Kongu Arts and Science College, Erode, Tamil Nadu, India.

ABSTRACT

Interval training is an effective method that targets specific metabolic systems, allowing them to be optimally engaged. This approach is founded on the principle that greater amounts of work can be completed at higher intensities with equal or reduced fatigue when compared to continuous training. The theoretical metabolic framework for exercise and rest intervals focuses on aerobic metabolism, fast glycolysis, and the phosphagen system, depending on the predominant energy system in use and the time required for substrate recovery. High-Intensity Interval Training (HIIT) offers several benefits, including calorie burning, weight loss, and muscle development. Additionally, HIIT has been shown to lower blood pressure and blood sugar levels while enhancing oxygen circulation and overall blood flow. It may also contribute to brain health by supporting mental well-being and memory functions. The present study examines the impact of high-intensity interval training and game-specific training on skill-related performance variables among school-level handball players. The researcher conducted an extensive review of literature from books, journals, periodicals, magazines, and research articles related to interval training. Previous studies have demonstrated that interval training positively influences specific game-related skills such as front shooting, accuracy in throws, and speed passing among school-level handball players. This study focuses on handball players aged 15 to 17 from schools in the Dindigul region of Tamil Nadu, India. Statistical analysis revealed significant improvements in standardized scores for front shooting, accuracy in throws, and speed passing across the three groups of handball players. Notably, players in the game-specific training group showed greater enhancements in these skills compared to the control group. Research on short-duration interventions for trained players may provide insights into the role of game-specific training in conventional handball practice. Such training could help athletes maintain proper posture and alignment during movement, contributing to overall skill development.

Key Words: *Physical fitness, speed, front shoot, accuracy throw speed pass, Game specific training, interval training.*

EXPLORING THE PLYOMETRIC AND FUNCTIONAL CORE TRAINING ON SELECTED PHYSICAL FITNESS AMONG MEN BASKETBALL PLAYERS

***Dr. S. Joicsy.**, Director of Physical Education, Rathinam College of Arts and Science, Coimbatore.

****Mr. S. Ramesh.**, Assistant Physical Director, Rathinam College of Arts and Science, Coimbatore.

ABSTRACT

Plyometric training is often called “jump training” because of its use of exercises that rapidly stretch and shorten your muscles. Hopping and jumping, for example, provide dynamic resistance to the target muscle groups, in this case of quadriceps, which conditions and strengthens the muscles. Additionally, these kinds of exercises increase a person’s vertical jumping abilities and reduce the force of impact on the person’s joints by strengthening them. Plyometric or bounding exercises, are excellent for building power, coordination, and explosiveness. Core muscles are mainly classified into two types they are stabilizers. The core muscles transfer forces between the upper and lower extremities of the upper and lower body. Many of the people imagining that core strength consists only of sit-ups or abdominal crunches. Core strength training is not only for reducing belly fat but it is very important for improving the performance of the runners. A stronger core can improve runners speed and prevent injuries. Our core muscles connect to our trunk, pelvis and spine and other rest of our body parts including our hips, shoulder blades, and legs. This is why simply doing sit-ups or crunches is not considered as core training and it is not going to stabilize our core. (Victoria Vogt, 2018). The purpose of the study was to find out the exploring the plyometric and functional core training on selected physical fitness among men basketball players. To achieve the purpose of the present study, forty-five men basketball players from Ernakulum District, Kerala state, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into three equal groups of fifteen subjects each. Group I acted as Experimental Group I (Plyometric Training), Group II acted as Experimental Group II (Functional Core Training) and Group III acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part.

Keywords: *Plyometric training, functional core training and explosive strength*

EFFECTS OF VARIED TRAINING REGIMENS ON PHYSICAL FITNESS AND SKILL PERFORMANCE AMONG COLLEGE LEVEL MEN VOLLEYBALL PLAYERS

*Dr. G. Mahalakshmi., Director of Physical Education, Government Arts and Science College, Tirupattur, Tamil Nadu, India.

ABSTRACT

Volleyball is a physically demanding sport that requires a combination of skill, strength, speed, and endurance. To optimize athletic performance, players often engage in various training regimens that aim to enhance their abilities across multiple facets of the game. Among the most common training modalities are resistance training and aerobic exercise, both of which target different physical capacities that are essential for success in volleyball. In the present world, sport is a sine quo none. Now, it is gaining an immense growth. At present, it has two subdivisions. It is used either for recreation or competition. To achieve top level performance, scientific systematic training is required. Due to scientific developments, the field of sports has gained significance as never before. So, people are ready to select sports as their profession. Due to this free flow of people in sports, the competitive level has become high. In case, an individual want to establish himself as a professional sportsman, his trained basic skills should be systemized along with technical and tactical skills. The purpose of the study was to find out the effects of varied training regimens on physical fitness and skill performance variables among college level men volleyball players. In this study 80 inter collegiate men volleyball players were selected as subjects, who have entered into the quarter finals among the affiliated colleges of Thiruvalluvar university, Vellore. Their age ranged from 19 to 25 years. They were randomly divided into four groups of 20 each. The segmented groups were named as concurrent progressive resistance with high intensity interval step aerobics training group, concurrent progressive resistance with high intensity interval run aerobic training group, concurrent sequential resistance with high intensity interval step aerobics training group, the control group was allowed to play their regular volleyball game, but they were not given any treatments. The mean different between pre and post of on selected physical fitness variables skills and performance variables respectively namely speed agility and jump service. The findings observed on testing the comparison effects of concurrent progressive resistance with high intensity interval step aerobics training group on selected skills and performance variables of college volleyball player's significant improvement among men volleyball players.

Keyword: *Aerobic training and concurrent progressive resistance.*

IMPACT OF VARIOUS YOGA AND KRIYA TRAINING PROGRAMS ON SELECTED PHYSIOLOGICAL VARIABLES AMONG COLLEGE LEVEL OBESE MEN

***Mohan Babu.**, Research Scholar, Department of Physical Education, Annamalai University, Chidambaram.

****Dr S. Vijay.**, Assistant Professor, Department of Physical Education, Annamalai University, Chidambaram.

ABSTRACT

This study aimed to investigate the impact of different yoga and kriya training programs on selected physiological variables in obese men at the college level. A total of 60 obese male college students were selected and randomly divided into three groups one undergoing yoga practice, another practicing kriya techniques, and a control group that received no intervention. The study was conducted over a 12-week period, with sessions held three times per week. Results showed significant improvements in the physiological variables of the experimental groups, with both yoga and kriya programs leading to reductions in BMI, waist-to-hip ratio, and blood pressure, along with enhanced respiratory efficiency. Obesity, defined by an excessive accumulation of body fat, is a chronic health condition that has reached alarming rates worldwide. It is a major risk factor for several life-threatening diseases, including cardiovascular disorders, type 2 diabetes, and hypertension. College students, particularly men, are increasingly exposed to sedentary lifestyles, poor dietary habits, and increased stress, contributing to higher rates of obesity. Conventional methods such as medication and exercise are commonly used to address obesity; however, complementary approaches like yoga and kriya have gained attention for their holistic benefits. Yoga, an ancient practice that combines physical postures, breath control, and meditation, has been shown to improve flexibility, strength, and mental well-being. Kriya, a specific set of breathing techniques designed to regulate the flow of energy within the body, has also been linked to various health benefits, including weight management, stress reduction, and enhanced physiological functioning. Both yoga and kriya have been suggested as potential interventions for obesity, yet limited research exists on their combined impact on key physiological variables among obese college men. The purpose of this study was to assess the effect of yoga and kriya training programs on selected physiological parameters such as heart rate in obese male college students. By exploring these alternative methods, the study aims to provide insights into the efficacy of non-pharmacological interventions for improving the health and well-being of this population.

Key words: Yoga, kriyas and Heart rate.

A STUDY ON YOGIC PRACTICES AND TABATA TRAINING ON SELECTED CORPORAL VARIABLES AMONG INTER COLLEGIATE MEN BASKETBALL PLAYERS

***Dr. V. Mohana Surenth**, Asst. Professor, Department of Physical Education, American College, Madurai-625002. Tamil Nadu, India.

****Dr. S. Vijaya Kumari**, Director of Physical Education, S.F.R College for Women, Sivakasi, Tamil Nadu, India.

ABSTRACT

Yoga is a science practiced in India for thousands of years. Yoga is designed to balance physical, mental, emotional, and spiritual well-being in an individual. Tabata is a shape concerning high-intensity end training as legion you after work at an altogether high depth for short periods over time. Dr. Izumi Tabata advisor at the Faculty of Sport then Health Science at Ritsumeikan University in Japan, was once the tip coach of the Japanese velocity skating crew high-intensity exercising during the long 1990s. Their goal was once in conformity with the decided agreement short bursts over high-intensity endeavour observed using shorter rests might situation the body higher than a continuous moderate-depth exercise. Tabata training is very advanced and is best suited to experienced exercisers. This protocol not only improves fitness. This workout is a form of high-intensity interval training designed to get the heart rate up in that very hard anaerobic zone for short periods. It helps burn more calories both during and after workouts. To develop the Playing ability of intercollegiate basketball players by practicing yoga and Tabata training. This study determined whether yoga and Tabata training impact abdominal strength and leg explosive power among intercollegiate men's basketball players. For this research study, 60 men's basketball players were randomly chosen from Madurai Kamaraj University-affiliated colleges, and their ages were between 17 and 24 years. The subjects were divided into three groups of 20 players each and assigned separate training. Group A underwent yogic practices, group B underwent Tabata training, and Group C with routine activity with no specific training. The training schedule is twelve weeks. A pre-test was administered two days ahead of the training period, and a post-test was administered after the training period concluded. The following variables namely abdominal strength and leg explosive power were selected as criterion variables. All the subjects were tested on selected dependent variables before and immediately after the training programme by using standardized test items. Conclusion: Yogic practices and Tabata training have been beneficial to intercollegiate men basketball players because it has a positive impact on selected dependent variables such as abdominal strength and leg explosive power.

Keywords: *Yogic, Tabata, Basketball, Abdominal Strength, Leg Explosive Power.*

**OPTIMIZING PERFORMANCE IN PARA-ATHLETES INVESTIGATING
UNIQUE TRAINING, NUTRITION, AND RECOVERY STRATEGIES
TO ENHANCE PERFORMANCE IN ATHLETES WITH
DISABILITIES IN DAKSHINA KANNADA**

***Mr. Anandavelu T M.**, Director of Physical Education, Yenepoya Institute of Arts, Science, Commerce and Management, Yenepya Deemed to be University, Mangalore.

****Dr. Prasanna B K.**, Assistant Director, Department of Physical Education, Mangalore University, Mangalore.

ABSTRACT

Para-athletes, individuals with disabilities competing in sports, face unique challenges in optimizing their performance. Unlike able-bodied athletes, para-athletes must adapt their training regimens to their specific impairments, while ensuring they maintain peak performance. With the right training, nutrition, and recovery strategies, their potential can be significantly enhanced. This paper focuses on exploring methods to optimize the performance of para-athletes in Dakshina Kannada, a region in south-western India rich in cultural diversity and resources, yet with emerging opportunities in adaptive sports. The aim of this study is to investigate and propose tailored training, nutrition, and recovery strategies that consider the specific needs of para-athletes in Dakshina Kannada, integrating local resources, cultural practices, and emerging sports science trends. Para-athletes, individuals with disabilities participating in sports, face unique challenges that require tailored training, nutrition, and recovery strategies to optimize performance. The study explores the impact of customized training programs, nutrition strategies, and recovery techniques on strength, endurance, energy levels, and recovery times. A mixed-methods approach was employed, incorporating qualitative interviews and focus groups with athletes, coaches, and sports professionals, as well as quantitative surveys and performance data. The findings demonstrate significant improvements in para-athletes' strength, endurance, and recovery times following the implementation of adaptive training and nutrition plans. Additionally, recovery techniques, including cryotherapy and yoga, led to a notable reduction in injury rates and improved flexibility. These results indicate that Dakshina Kannada can become a hub for para-athlete development by integrating global best practices with regional resources and expertise. The study also provides recommendations for further enhancing para-sports in the region through community engagement, specialized training centres, and ongoing research into tailored sports science strategies.

Keywords: *Para-athletes, training strategies, nutrition, recovery, Dakshina Kannada, performance optimization, adaptive sports.*

EFFECT OF THERA BAND TRAININGS ON DYNAMIC SHOULDER STRENGTH AMONG ADOLESCENT VOLLEYBALL PLAYERS

***Dr. M. Ramanathan.**, Assistant Professor, Department of Physical Education., American College, Madurai., Tamilnadu.

ABSTRACT

Volleyball is a ball game that calls for a high level of neuromuscular coordination, speed, agility, and power, in addition to biomechanical demands on the musculoskeletal system. The core movements in a volleyball match include passing, setting, spike, blocking, and serving the ball. These movements call for the use of different speed actions and vertical or horizontal hops. It's been proposed that volleyball players who play for teams that do better have greater vertical leap metrics. In addition, these values are regarded as significant performance indicators for younger and less experienced players. Thera band workout is a ground-breaking substitute for conventional static stretching equipment. Stretches that combine dynamic contract-relax movements with it can enhance muscle strength and flexibility. To slow down the arm, stabilize the humeral head and contract the pectoralis major, latissimus dorsi, serratus anterior, biceps, and deltoid. Controlling deceleration and reducing the eccentric excess load on the supraspinatus tendon are two important functions of the latissimus. The purpose of the study was to ascertain how volleyball players' shoulder strength was impacted by resistance training with Thera bands. Twenty female volleyball players from chosen government school pupils who represent the Madurai district of Tamil Nadu, India, were randomly selected to serve as subjects in order to meet the study's objectives. They ranged in age from fourteen to seventeen. The selected people were randomly assigned to two groups: Group I (n = 10) received resistance training, while Group II (n = 10) served as the control group. Group "I" engaged in one daily session of 45–60 minutes of resistance training with Thera band on four different days over the course of eight weeks. Group "II" participated in routine activities but did not receive any special training. Push up tests were used to gather and provide data on shoulder strength. Data from the pre- and post-tests were gathered on criteria-selected variables both before and right after the training course. The dependent-"t" test and Analysis of Covariance (ANCOVA) were used to statistically analyse the pre- and post-test scores for each individually chosen variable. Results: It was determined that the shoulder strength of the Thera band resistance training group had greatly improved. However, in shoulder strength, the control group had not demonstrated any appreciable increase.

Key Words: *Volleyball Players, Shoulder Strength, Modified Push Up Test.*

EFFECT OF WEIGHT TRAINING AND SPRINT TRAINING ON SELECTED MOTOR VARIABLES OF DISTRICT LEVEL MEN HANDBALL PLAYERS

***Dr. P. Kala.,** Assistance Professor., Department of Physical Education., American College, Madurai, Tamilnadu.

ABSTRACT

Handball is a team sport played by two male or female teams. The players are allowed to handle and throw the ball using their hands, but they must not touch the ball with their feet. Motor Fitness refers to the capability of an athlete to perform effectively at their particular sport. The components of motor fitness are: speed and strength and finally reaction time. Defined that speed is the ability of an individual to make successive movements of the same kind in the shortest period of time. Speed is the number of movements per unit of time.” Strength is the maximum force that can be developed in a muscle or group of muscles during a single maximal contraction. This type of training is also known as small-sided games which are very popular in soccer and rugby, where players use smaller play area and less number of participants during small-sided games, each player comes into contact with the ball and deals with common game situations more often (Capranica et al. 2001). These situations require good technical skills such as passing, dribbling, feinting and shooting as well as tactical skills such as running without the ball, unmarking and cooperation with other players. The advantages of this training ensure the players to perform optimally during a game. The present study was finding out effect of Weight Training and Sprint training on the development of selected bio motor variables among men handball players. As the purpose of the present study, 60 players were selected as samples from Madurai District. They were divided into three groups. Each group consists of 20 subjects. Group -I aerobic training, Group - II anaerobic Training and Group - III control group. The ages of subjects were ranged from 18-25. Group A and B underwent training for a period of twelve weeks. The control group was not exposed to any specific training apart from their regular routine. The selected criterion variable were speed and strength. (a) In order to analyze the training effects of each group on the selected variables, “t” ratio was used. (b) In order to compare the effect of treatment on the selected variables among the three groups, analysis of covariance was used. Whenever, the ‘F’ ratio for adjusted post-test was found to be significant to and to determine which of the three paired means significantly differed, the Scheffe’s test was applied. The study results showed that the experimental group had significantly altered selected variables namely speed & strength and this was due to the influence of aerobic and anaerobic training.

Key words: Weight Training, Sprint Training, Handball Players.

MODERN TECHNOLOGIES IN ANALYZING SPORTS PERFORMANCE AN OVERVIEW

***R. Ranjitham.**, Head & Director of Physical Education, K.M.G. College of Arts and Science, Gudiyattam, Vellore.

****B. Gnanakumar.**, Director of Physical Education, K.M.G. College of Arts and Science, Gudiyattam, Vellore.

*****Dr. R. Balasubramani.**, Director of Physical Education, K.M.G. College of Arts and Science, Gudiyattam, Vellore.

ABSTRACT

Performance analysis is a sub-discipline of Sport Science research (Borms, 2008) that has attained great interest for many coaches, technical staff, performance analysts, and players at different levels of performance. The development and implementation of new technologies to measure individual or team's performances like tracking systems such as local positioning systems, LPS; video tracking, or observational video analysis systems with multiple practical applications have intensified the focus of performance analysis in sport. By dissecting their performance frame by frame, video analysis can assist athletes in pinpointing areas in which they might improve. Video analysis is another tool that athletes can utilize to understand how they are feel during the competition. Video analysis can help coaches to communicate with their teams by providing visual examples of errors and areas for improvement. Coaches can use video analysis to watch live-stream matches and make strategic adjustments on the spot. Teams can study video footage of previous games to analyze their opponents' tactics. Sport science and other broad areas of modern life have been significantly impacted by technology advancements. The demand for technological studies has grown in parallel with the sport industry's global expansion and dispute resolution. The primary goal of this academic qualitative study was to look into how modern technology affect athletic performance. The role of specific games and sports is often emphasized in the discussion of various technological equipment. The researcher finds number of new devices are used in the field of sports and games in making the game easier and to develop performance, on providing correct decisions through the technology.

Keywords: *Sports Technology, Sports Science, Performance analysis, Professional Athletes, Goals, Injuries, Software.*

INFLUENCE OF ASANAS AND COMBINATION OF ASANAS AND PRANAYAMA ON CARDIO RESPIRATORY ENDURANCE AMONG COLLEGE MEN

*Dr. A. Sellaperumal., Director of Physical Education, R.K.M Vivekananda College, Chennai.

ABSTRACT

Yoga provides one of the best means of self-improvement and attaining one's full potential. In the advanced stages of yoga, super conscious states are attained which result in a feeling of bliss, deep peace and the emergence of psychic powers. Yoga was developed and perfected over the centuries by philosophers and mystics in India. Yoga has specialized in this subject for thousands of years, and streamlined the methods to attain this aim. The purpose of the study was to find out the influence of asanas and combination of asanas and pranayama on Cardio Respiratory Endurance college men. To achieve the purpose of the study, sixty students were selected from RKM Vivekananda college students, Chennai as subjects at random and their age was ranged from 17 to 22 years. The subjects were divided into three equal groups. The subjects (N=60) were randomly assigned to three equal groups of twenty men students each. The groups were assigned as experimental group-1 experimental group-2 and control group in an equivalent manner. Training programs for experimental group were designed separately. The scientifically designed programmes were given to the subjects of experimental group. The subjects of the control group were not participated in training. The treatment groups underwent the programme four days a week for a period of sixteen weeks with sixty minutes per session. In order to find out whether the obtained difference between the means of the selected variables in the pre-test, mid test and post-test are statistically significant, repeated measures ANOVA was applied. When the F ratio was found to be significant Newman-Keuls post hoc test was applied to test which of the possible comparison among the means are significant. Analysis of Covariance was applied to determine the significant difference among the three groups namely Asanas training group, Asanas with Pranayama training group and the control grouping the development of selected variables after 16 weeks of training. If the mean difference was significant, the pairs of adjusted final group means was tested for significance by applying Scheffe's post-hoc test. The results of the study reveals that the asanas training, asanas with pranayama training and control group had differed significantly in Cardio Respiratory Endurance. However, the mean gains in this variable among the pre-test, mid test and post-test were statistically significant.

Keywords: Asanas, Pranayama training and Cardio Respiratory Endurance.

EFFECTS OF RECREATIONAL GAMES TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES OF SCHOOL STUDENTS

***Dr. Shaik Meeravali**, Principal, Siddhartha College of Physical Education, Ibrahimpatnam, Hyderabad.

ABSTRACT

In the modern world, man is enjoying lots of luxuries provided by the developments in advanced technology. Simultaneously, man is also facing lots of physical, mental, emotional and social disturbances in everyday living. Undoubtedly the latest technological developments have provided all kinds of comforts in all walks of life, at home as well as the work places, in agriculture or industries and so on. They have also reduced dependence of persons on each other, has resulted in increased social, and physiological problems. It has also reduced physical work but introduced the shift system at work places. People working in day and night shift have reduced the family members to strangers. This is causing emotional upheavals. Collectively all these factors affect family life, society and nation adversely in the long run. Further, the technological advancements in every spheres of life have created lots of free, or leisure time after the working hours. Side by side easy availability of recreational gadgets like T.V, cable T.V, Video CD games, computer games have made the human child least interested in physical activity. As a result, in so many physical, mental and emotional problems have cropped up. To counteract these. i.e. to utility the free or leisure time in a constructive way and to make people physically active thereby allowing their growth and development, active recreation activities, other than the passive ones, are a must. The present study is to find out the combined effects of recreational games training on selected physical fitness variables of school students. 30 students were selected from Govt. High school Ibrahimpatnam, Hyderabad. The age of the subjects ranges from 11 and 14 years. They were divided into two groups of 15 in each. One group was acted as the experimental group and another group was acted as control group. The experimental group underwent the combined training for 12 weeks 6 days per week. Each training session was for one hour in the evening from 3.00 PM to 4.00 PM. To achieve the result, the collected data on following criterion measures namely physical fitness variables like Speed and agility. The standardized tests were taken before and after the combined training. The paired 't' test was applied to analyze the collected data and in all cases the criteria for the statistical significance was set at 0.05 level of confidence. It is concluding that the recreational games training significantly increased the speed and agility of school students. Keywords combined training speed and agility.

Keywords: recreational games training, physical, mental, emotional and social.

EFFECTS OF SPECIFIC FOOTBALL DRILLS ON SELECTED PHYSICAL FITNESS AND SKILL PERFORMANCE VARIABLES FOR COLLEGE SOCCER PLAYERS

*Mr. H. Aravindan., Director of Physical Education, Christ Academy Institute of Law, Bangalore.

ABSTRACT

Modern football originated in Britain in the 19th century. Though “folk football” had been played since medieval times with varying rules, the game began to be standardized when it was taken up as a winter game at public schools. The Football Association, formed in 1863, codified the rules of the game and hosted the first cup competition between regional football clubs in Britain. Football, also called association football or soccer, is a game that has a long history. There is evidence in China that military forces around 2nd and 3rd century BC (Han Dynasty) played a game, originally named "Tsu Chu", that involved kicking a leather ball stuffed with fur into a small hole. Like Soccer, no hands were permitted during the play of the game. Physical fitness is a state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations and daily activities. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise and sufficient rest along with a formal recovery plan. To achieve the purpose of the present study fifteen football players were selected from Christ law college Bangalore, their age ranged from 18 to 22 years. The selected subjects equally divided into two equal groups, namely experimental group (n=10) and control group (n=10). The pretest and post test data were statistically examined for significant difference through dependent ‘t’ test for each and every variable selected for this study. The level of confidence was fixed at 0.05. The result of the study showed that the selected football drills training was improve the physical fitness variables namely speed and flexibility and also specific football drills made significant changes in the football specific skills namely Dribbling and Run and Kick of experimental group improve selected physical fitness variables and specific football skills of college soccer players.

Keywords: football drills training, folk football, Dribbling, Running and Kick.

ANKLE SPRAIN AND ITS REHABILITATION AMONG FOOTBALL PLAYERS

***Mr. P. Natarajan.,** Research Scholar in Physical Education, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.

****Dr. M. Ashokkumar.,** Assistant Professor., Department of Physical Education, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.

***Mr. K. Thirukumaran.,** IInd - M. P. Ed Student, Cheran College of Physical Education, Punnam Chathiram, Karur, Tamil Nadu, India.

ABSTRACT

Ankle sprain is one of the most common injuries in our day to day life. The ankle helps us move around, stay balanced, run, shift, turn and etc. Football is one of the most popular games in the world. In worldwide, there are more than 240 million registered football players and so many recreational players. Today's world is a competitive world, which is truly proved in sports and games. In fact, it has become a prestige issue to us to win the medals at the international level. We have spent multi-millions on research projects to invent new techniques and technology to achieve the goal. We know that more injuries occur during competitive matches and training session also. Most football injuries occur on the lower extremities (the groin and pelvis, hip and thigh, knee, calf, foot, fingers, wrist, toes and ankle) of our body. Footballers suffer more injuries than those involved in other sports and games (field hockey, baseball, softball, martial arts, gymnastics, dance, tennis, volleyball, handball, basketball, rugby, cricket, badminton, cycling, judo, boxing and swimming). Important considerations in the rehabilitation of ankle injuries include controlling the acute inflammatory process, regaining full angle range of motion, increasing muscle strength, power flexibility and neuromuscular coordination. The purpose of the study was to determine the most common injuries among football players that participated, in weight-bearing sports, to determine the most common method of treatment / rehabilitation for these ankle sprain injuries and the prevalence of the reoccurrence. Rehabilitation concepts are applicable to acute and chronic injury of the ankle, to provide indication for the techniques used in the rehabilitation. Rehabilitation programs that highlight the use of strengthening exercise to restore joint range of motion, muscle strength, power, flexibility and neuromuscular coordination have been shown to have clinical ankle pathologies. Exercise may reduce the frequency of recurring ankle sprains and may be effective in managing chronic ankle instability. This study was to estimate the effectiveness of ankle stimulating in preventing returns of ankle sprains, especially in footballers.

Keywords: *Ankle sprain, joint range of motion, muscle strength, power, flexibility and neuromuscular coordination.*

INVESTIGATION ON THE CHANGES ON MAXIMUM EXPIRATORY PRESSURE DUE TO YOGA THERAPY AMONG HYPERTENSIVE MEN

***Dr. P. Chellappa.**, Assistant Professor, Dr. Sivanthi Adithanar, College of Physical Education, Tiruchendur.

****Sri. A. Ganesan.**, Physical Director, Ramakrishna Mission Vidyalaya Polytechnic College, Coimbatore.

*****Sri. V. Padmanabhan.**, Physical Trainer, PSG Technology, Peelamedu, Coimbatore.

ABSTRACT

Researchers are still trying to figure out what causes blood pressure to gradually rise. A number of factors could be at play. Genes, physical changes, environment, and lack of exercise, unhealthy lifestyle, obesity, and poor diet are some of these variables. In today's India, hypertension is a frequent condition among adults. Hypertension is more common in cities than it is in rural regions. Smoking, heredity, body fat, and lifestyle are all factors to consider. The real origin of primary hypertension is unknown, which is why it is referred to as essential hypertension; the other form is referred to as secondary hypertension. Yoga is one of India's six mainstream philosophical systems. Yoga is derived from the Sanskrit root 'yuj', which means to tie, join, attach, and yoke, to focus and direct one's attention on, and to utilize and apply. It can also refer to a connection or a communion. It is the true union of the individual soul with the supreme soul, the yoking of all the faculties of body, mind, and soul to God; it is the discipline of the intellect, mind, emotions, and will to God. This study was find about investigation on the changes on maximum expiratory pressure due to yoga therapy among hypertensive men. To achieve the purpose of the study, 80 male hypertensive patients only from Tuticorin, aged between 45 and 55 years, were selected. The range of hypertensive patients (>140/99mm Hg) to (<160/100 mm Hg) will take for the study. The selected eighty subjects were randomly divided into two equal groups of fifteen subjects each, out of which group – I (n = 15) underwent yoga therapy programme and group – II remained as control. The training period for the present study was five days per week for twelve weeks. Prior to and after the training period the subjects were tested for maximum expiratory pressure. The statistical tool was used for the present study is Analysis of covariance (ANCOVA). The result of the study was significant improvement on maximum expiratory pressure after twelve weeks of yoga therapy programme. However, the improvement was favour of experimental group. There was a significant difference was occurred between yoga therapy group and control group after twelve weeks of yoga therapy programme.

Key Words: *Yoga therapy, Hypertension and Maximum expiratory pressure.*

THE EFFECT OF PRANAYAMA PRACTICES ON MENTAL HEALTH OF COLLEGE LEVEL MEN STUDENTS

*Dr. V. Balamurugan, Assistant Professor, Maruti College of Physical Education, Coimbatore, Tamil Nadu.

ABSTRACT

Yoga to be associated with the acquisition and exhibition of supernatural powers, requiring complete discipline of the mind and the body. He has further explained the word 'Yoga' as the noun form derived from the basis 'Yuj', acceptation 'to unity' or 'to connect'. Yoga has its own technology and also scientific basis. It is an 'art' which aspires to broaden one's perspective and insight to achieve a state of personal enlightenment. The prescribed practices and procedures of yoga, cater to the needs of its adherents under varied conditions to lead a way of life and attenuate the obstacles in acquiring the state of "Enlightenment". Yoga is also a method of self-realization, which begins with the perfection of one's physical-self and aspires to achieve a state of self-consciousness. 'Yogic Breathing' is an equivalent of the Sanskrit word 'Pranayama', which seems to have come to enjoy a very important place in yoga literature. The word 'Prana' is perhaps as old as the word 'Yoga' itself, but the elaborate technique concerning its control, which forms a part of the eight-fold system of yoga, seems to be of a later origin. In the galaxy of scientific knowledge, the term 'Mental Health' always forms a pair with another term popularly known as 'Mental Hygiene'. However, these two terms are not synonymous. As a matter of fact, mental hygiene is a science having three-fold objectives namely Prevention of mental disorders, preservation and promotion of mental health and correction of mal-adjustments. The purpose of the study was to find the Impact of pranayama practices on mental health of college level men students. For these purpose 30 men students from Bharathiyar University, Coimbatore in the age group of 21 to 25 years were selected at randomly. They were divided into two groups, group I was treated as, experimental group and group II was treated as control group. Experimental group was given six weeks' pranayama practice and the control group was not given any treatment. Mental health was selected as variable and it was assessed through Peter Becker Questionnaire. The data were collected before and after the training period and collected data was computed by dependent 't' test in all cases level of significance was fixed at 0.05 level. The result concluded that there was significant improvement on mental health due to the influence of pranayama practices than the control group among College students.

Keywords: Yoga, Pranayama, Mental Health.

EFFECT OF YOGASANA AND PRANAYAMA ON SELECTED CARDIO-RESPIRATORY PARAMETERS OF MIDDLE AGED MEN

***Dr. Suresh Dasi.,** Physical Director, St. Martin's Engineering College, Dhulapalley, Secunderabad-Ts.

****Prof. P. P. S. Paul Kumar.,** Dean, Faculty of Physical Education, Yoga & Sports, Acharya Nagarjuna University, Andhra Pradesh.

ABSTRACT

Cardio respiratory fitness is the ability of the heart to pump stronger and more efficiently and the muscles to use oxygen more efficiently. As one gets more aerobically fit, the heart will pump more blood and oxygen with each beat and the muscles will extract (or consume) more oxygen. For instance, if one has 100 oxygen molecules floating around in the bloodstream, a conditioned muscle might consume 75 molecules, whereas a deconditioned muscle might only consume 30, or even fewer than that. Regular exercise makes these systems more efficient by enlarging the heart muscle, enabling more blood to be pumped with each stroke, and increasing the number of small arteries in trained skeletal muscles, which supply more blood to working muscles. Individuals that spend a lot of time doing cardiovascular-type training have more efficient hearts that are capable of delivering greater amounts of nourishment to working tissues with less stress placed on their tickers. In addition to having a greater amount of working capacity, regular aerobic-type training can help prevent certain diseases and disorders that can impair an individual's cardiovascular system. Thus, the benefits of cardio respiratory fitness includes, reduction in blood pressure, increased HDL cholesterol, decreased total cholesterol, decreased body fat stores, increased aerobic work capacity, decreased symptoms of anxiety and stress and increased heart function. Yogic techniques are known to improve one's overall performance. Pranayama is known to be a part of yogic techniques. Patanjali in its yoga sutra Describes-Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi as eight angas (parts) of yoga. Amongst them, in the present materialistic world, the third and fourth part, Pranayama and Asana (Postures) are considered as very important parts and prescribed by modern medicine too. Researches have proved the beneficial effects of different yogasanas and pranayama are well reported and has sound scientific basis. Different types of pranayama produce different physiological responses in normal young volunteers. The present study was designed to find out the influence of yogasana and pranayama exercises on selected cardio respiratory parameters of middle aged men.

Keywords: *Cardio respiratory fitness, aerobic-type training, blood pressure, cholesterol, body fat, aerobic work capacity, anxiety and stress.*

A COMPARATIVE STUDY OF AEROBIC FITNESS AMONG CRICKETERS AND SOFT BALL PLAYERS OF TELANGANA STATE

*J Vijaya Kumar., Research Scholar, Palamuru University, Mahabub Nagar, TG.

**L. B. Laxmikanth Rathod., Professor, Palamuru University, Mahabub Nagar, TG.

ABSTRACT

Cricket is a bat-and-ball game played between two teams of eleven players each on a field at the centre of which is a 22-yard (20-metre) pitch with a wicket at each end, each comprising two bails balanced on three stumps. The game proceeds when a player on the fielding team, called the bowler, "bowls" (propels) the ball from one end of the pitch towards the wicket at the other end, with an "over" being completed once they have legally done so six times. The batting side has one player at each end of the pitch, with the player at the opposite end of the pitch from the bowler aiming to strike the ball with a bat. The batting side scores runs either when the ball reaches the boundary of the field, or when the two batters swap ends of the pitch, which results in one run. The fielding side's aim is to prevent run-scoring and dismiss each batter. Softball is a game similar to baseball played with a larger ball (11 to 16 inches or 28 to 40 cm circumference) on a field that has base lengths of 60 feet, a pitcher's mound that ranges from 35 to 43 (professional is 43) feet away from home plate, and a home run fence that is 220–300 feet away from home plate, depending on the type of softball being played. Softball is played competitively at club levels, the college level, and the professional level. Softballs are pitched underhand, but baseballs are pitched overhand. This changes the arc of the ball when approaching the plate. The present study is to find out the comparative study of aerobic fitness among cricketers and soft ball players of telangana state. 30 students were selected from telangana state. The age of the subjects ranges from 18 and 22 years. They were divided into two groups of 15 in each. One group was acted as the cricketers group and another group was acted as softball players group. The both group underwent the aerobic fitness training for 12 weeks 6 days per week. Each training session was for one hour in the evening from 3.00 PM to 4.00 PM. To achieve the result, the collected data on following criterion measures namely aerobic fitness variables like beep test and endurance. The standardized tests were taken before and after the combined training. The 't' ratio test was applied to analyze the collected data and in all cases the criteria for the statistical significance was set at 0.05 level of confidence. It is concluding that the aerobic fitness training significantly increased the shuttle run and cooper 12 minutes run/walk of cricketers and softball players.

Keywords: Cricket, Softball, shuttle run and cooper 12 minutes run/walk.

EFFECT OF PLYOMETRIC TRAINING ON SELECTED BIO MOTOR VARIABLES AMONG UNIVERSITY MALE BASKETBALL PLAYERS

***Boram Parvathalu.,** Research Scholar Palamuru University, Mahabub Nagar, TG.

****L. B. Laxmikanth Rathod.,** Professor, Palamuru University, Mahabub Nagar, TG.

ABSTRACT

Basketball game played generally indoors by two opposing teams of five players each. Basketball was conceived in 1891 by Dr. James Naismith, a physical education instructor at the YMCA College in Springfield, Massachusetts. As a way to condition outdoor athletes during the winter months. Today basketball is the fastest game. It is also the fastest growing sports in the world. Is for everyone and every occasion. A number of U.S. colleges adopted the game between about 1893 and 1895. In 1934 the first college games were staged in New York City's Madison square garden, and college basketball began to attract heightened interest. By the 1950s basketball had become a major college sport, thus paving the way for a growth of interest in professional basketball. In 1956 a basketball Hall of fame was founded in Springfield, Massachusetts. Its rosters include the names of great players, coaches, referees, and people who have contributed significantly to the development of the game. The present study is to find out the effect of plyometric training on selected bio-motor variables among university male basketball players. 20 basketball players were selected from palamuru university, mahabub nagar, TG. The subjects were between 20 to 25 years. They were divided into two groups of 10 in each. One group was acted as the experimental group and another group was acted as control group. The experimental group underwent the circuit training for 6 weeks 3 days per week. Each training session was for one hour in the evening from 3.00 PM to 4.00 PM. To achieve the result, the following criterion measures namely bio-motor variables namely agility and muscular endurance were also tested. The standardized tests were taken before and after the circuit training. Agility was tested by using 4X10 shuttle run and muscular endurance was tested by using bent knee sit-ups. The paired 't' test was applied to analyze the collected data and in all cases the criteria for the statistical significance is set at 0.05 level of confidence.

Keywords: *Plyometric training, basketball game, agility and muscular endurance.*

TRENDS IN SPORTS: TRAINING & COMPETITIVE ADVANTAGE

Dr. A. Needhiraja, Assistant Professor, SRMV Maruthi College of Physical Education, Coimbatore.

****Dr. N. Senthil Kumar.**, Physical Director, SRMV Swami Shivananda Hr. Sec. School, Coimbatore.

ABSTRACT

The integration of technology, from wearable devices to advanced analytics, has revolutionized athlete preparation, making it a key factor in competitive advantage. These developments, as highlighted in insights like the steps to success with athlete monitoring, show the transformative effect of technology in sports. The evolution towards more sophisticated, technology-driven sports practices was evident last year and referenced in our 2024 Sports Trends Report and the significant growth in the sports tech market. These trends underline the importance of adopting new technologies for maintaining and enhancing competitive advantage, setting the stage for the future of sports innovation. Wearable technology, especially GPS-tracking vests and devices, has revolutionized sports training by providing detailed insights into athlete performance. Systems like the Catapult Vector S7/T7 offer precise data on movement, speed, and workload, enabling personalized training and injury prevention strategies. These tools allow for the analysis of performance trends and the customization of training to meet each athlete's needs. They're invaluable across various sports settings, ensuring accurate performance tracking both indoors and outdoors. Discover the advancements in athlete monitoring and their impact on sports at Catapult's Vector series, showcasing how technology enhances training precision and athlete performance. The integration of Artificial Intelligence (AI) and data analytics into sports is revolutionizing training development and injury prevention. These technologies offer personalized insights into athlete performance, enabling precise adjustments to training regimes for enhanced performance and reduced injury risk. Artificial Intelligence-driven analytics are crucial for interpreting performance data, and revealing patterns and insights through advanced algorithms and machine learning. This allows for informed decisions on training and recovery, tailored to each athlete's needs (Discover more about AI and sports analytics). AI's predictive power is a game-changer in preventing injuries and identifying risk factors by analyzing performance data. This enables coaches to adjust training proactively, keeping athletes at peak performance.

Keywords: technology, athlete, movement, speed, and workload.

IMPACT OF AEROBIC TRAINING AND YOGIC PRACTICES ON PHYSICAL FITNESS COMPONENT AMONG COLLEGE LEVEL SPORTS MEN

Dr. K. Tarmizhmaran., Assistant professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore.

Dr P. Manjupashpa., Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.

ABSTRACT

Aerobic training, also known as cardiovascular or endurance training, involves prolonged physical activities that elevate the heart rate and enhance the efficiency of the cardiovascular system. This type of exercise includes activities such as running, cycling, swimming, and dancing, primarily utilizing oxygen to generate energy, thereby improving overall stamina and endurance. Regular aerobic training not only strengthens the heart and lungs but also aids in weight management, boosts mood, and promotes overall health by reducing the risk of chronic diseases. Engaging in consistent aerobic exercise helps individuals enhance their physical fitness and improve their quality of life. The purpose of the study was to determine the impact of aerobic training and yogic practices on flexibility, muscular strength, and cardio respiratory endurance among the college-level sportsmen. Forty-five college-level sportsmen from Coimbatore district, Tamil Nadu, were randomly selected as subjects. The age of the subjects ranged from 17 to 22 years. The selected subjects were divided into three equal groups, Group I underwent aerobic training, Group II yogic practices, and Group III served as the control group. The experimental groups participated in aerobic training and yogic practices three alternative days in a week for twelve weeks. Aerobic training and yogic practices were considered independent variables, while flexibility, muscular strength, and cardio respiratory endurance were the dependent variables. These dependent variables were assessed using standardized test items. Flexibility was measured using the sit-and-reach test, with results recorded in centimeters. Muscular strength was evaluated using the sit-up test, with results recorded as the number of sit-ups per minute. Cardio respiratory endurance was assessed using the 12-minute run/walk test in meters. The study employed a pre-test and post-test randomized experimental design. Data were collected from each subject before and after the training period and were statistically analyzed using the dependent 't' test and analysis of covariance (ANCOVA). The results revealed a significant improvement and notable differences due to the effects of aerobic training and yogic practices on flexibility, muscular strength, and cardio respiratory endurance.

Keywords: *Aerobic Training, Yogic Practices, Flexibility, Muscular Strength and Cardio Respiratory Endurance.*

EFFECT OF AEROBICS EXERCISE ON SELECTED PHYSICAL VARIABLES AMONG SCHOOL MEN HOCKEY PLAYERS

***Mr. M. Niraipandiyam.**, Research Scholar, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.

****Dr. V. Amutha**, Principal – Cum - Syndicate Member, Cheran College of Physical Education, Karur.

ABSTRACT

The people today have experienced more changes and crises than of any other generation. Improvement in modern technology has enabled our present day society to exist in a world where physical work is almost obsolete. We are constantly looking for ways to make life easier, that is, from the view point of conserving effort and human energy. Physical inactivity and increased sedentary nature of our daily living habits are a serious threat to the body, causing major deterioration in normal body functions. Such common and serious medical problems as coronary heart disease, hypertension, obesity, anxiety, depression and lower back problems have been either directly or indirectly associated with lack of physical activity. Biologically man tends to conserve energy. Along with it, advancement in technology and automation, modern civilization consciously or subconsciously has become less active and lazier. The purpose of the study was to find out the effect of aerobics exercise on selected physical variables among school men Hockey players. To achieve the purpose of the present study 30 men students were selected as samples from Cheran Hr. Sec. School, Punnam Chathiram, Karur, Tamilnadu, India. were randomly selected as subjects and their age were between 18 to 25 years. The selected subjects were divided into two equal groups of each 15 namely experimental group and control group. The group I Aerobics training for three days per week for six weeks, whereas the group II acted as control who maintained their daily routine activities and no special training was given to them. The following physical variables namely Cardio Respiratory Endurance, Shoulder Muscular Strength were selected as criterion variables. The measured by using Cooper 12 Minutes Run and walk and Push up test is used. The collected data were analyzed statistically through analysis of 't' ratio to find out the significant difference, if any between the groups. The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate. The results of the study showed that there were significant differences exist between aerobics exercise group and control group on Cardio Respiratory Endurance, Shoulder Muscular Strength. And also aerobics exercise group showed significant improvement on Cardio Respiratory Endurance, Shoulder Muscular Strength when compared to control group.

Keywords: Aerobics exercise, Cardio Respiratory Endurance, Shoulder Muscular Strength.

EFFECT OF TABLE TENNIS TRAINING WITH VIDEO FEEDBACK ON SELECTED SKILLS PERFORMANCE VARIABLES AMONG COLLEGE LEVEL BOYS

***Sridhar M.**, Research Scholar, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore.

****Dr. Srinivasan M.**, Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore.

ABSTRACT

Sports training has evolved significantly with technology integration, leading to enhanced skill acquisition and performance improvement. Table tennis, a sport that demands quick reflexes, precise motor coordination, and strategic gameplay, has seen substantial advancements through video-based training methods. Video feedback has emerged as a powerful tool in modern coaching, enabling athletes to analyze their movements, correct errors, and refine techniques more effectively than traditional methods. Video feedback in sports training allows athletes to observe their performance from multiple angles, compare their techniques with expert models, and receive immediate corrections. Research suggests that visual feedback enhances motor learning and skill execution, especially in sports requiring high-speed decision-making and coordination. The purpose of the research study is to find out the Effect of table tennis training with video feedback on selected skills performance variables among college-level boys. To accomplish the purpose of this study, 15 students were selected as subjects from Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education students. The subject's age ranged from 18 to 25 years. Independent variable -Table Tennis training with video feedback, Dependent variables - serve, forehand drive, backhand drive and dropThe researcher-made tests were used to assess the participants' performance. A paired 't' test was used to test the mean difference between the pre and post-test. During the training - 6 weeks, Number of days per week - 5 days, Number of sessions per day - 1 session (1 ½ hours) and Duration of session - 60 minutes. These results emphasize the importance of incorporating video feedback as a modern training tool to accelerate skill development in table tennis. Future research could explore its effectiveness across different skill levels, compare its impact with traditional coaching methods, and investigate its long-term benefits in athlete performance retention. It is concluded that the skill performance variables namely service, forehand drive, backhand drive, and drop of college-level students were significantly improved due to the training of table tennis training with video feedback.

Keywords: Table Tennis, service, forehand drive, backhand drive, drop, video feedback.

ROLE OF INDIGENOUS HERBS AND SPICES IN SPORTS PERFORMANCE A REVIEW

***Ms. K. Athira.,** Research Scholar, Department of Food Service Management and Dietetics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

****Dr. S. Uma Mageshwari.,** Professor Research Scholar, Department of Food Service Management and Dietetics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

ABSTRACT

Athletes use many dietary supplements and ergogenic aids, and many more are being explored and developed for improving the overall performance of athletes. There is a need for new supplementation strategies considering the limitations and various adverse effects of currently used supplements, including performance-enhancing drugs in the sports and fitness industry. One of the evolving strategies is the development of natural alternatives for enhancing physical fitness. The use of plants in Indian traditional medicine "Ayurveda" and almost every aspect of daily life roots from the rich cultural heritage and Vedic culture of India. Many herbs, spices, different parts of the plants such as bark, roots, flowers, leaves, etc. have their significance in treating various diseases, boosting energy, in food, in beverages such as tea, in pest control, and so on. Plants as supplements offer multiple benefits; for example, they are readily available, are safe, free from side effects, and are eco-friendly. For many decades, humans have relied on synthetics for medicine and supplements; however, now people are returning to plant-based alternatives to ensure safety of the human beings and the environment. The traditional Indian plants used in medicine or food or several other purposes also hold a strong potential to improve physical performance. Herbal medications and supplements have grown in popularity over the last few decades. Several herbs are currently being used to boost athletic performance, muscle strength, and body mass. Recent study indicates that the health advantages are due to bioactive substances present in plants and spices such as polyphenols, terpenoids, and alkaloids, which have a variety of physiological impacts on people. Many plants and spices have been commonly used to improve sports performance at various dosage levels. The information on proven research in the area of the use and benefits of herbs and spices in practice with reference to sport is not available collectively. Hence, the common herbs and spices and their impact and efficacy in improving sports performance have been discussed in this article.

Keywords: Athletes, performance-enhancing drugs and traditional Indian plants.

IMPACT OF SAND TRAINING ON SELECTED PHYSICAL FITNESS AMONG INTER COLLEGIATE HANDBALL PLAYERS

***Dr. S. Velkumar.,** Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.

ABSTRACT

The team handball game of today was formed by the end of the 19th century in northern Europe, primarily Denmark, Germany, Norway and Sweden. Holger Nielsen, a Danish gym teacher, drew up the rules for modern handball (håndbold) in 1898 and published them in 1906, and Rasmus Nicolai Ernst, another Danish teacher, did something similar in 1897. Modern Handball is therefore widely considered a game of Danish origins. The first international games were played under these rules, between Germany and Belgium for men in 1925 and between Germany and Austria for women in 1930. In 1926, the Congress of the International Amateur Athletics Federation nominated a committee to draw up international rules for field handball. The International Amateur Handball Federation was formed in 1928, and the International Handball Federation was formed in 1946. Men's field handball was played at the 1936 Summer Olympics in Berlin. During the next several decades, indoor handball flourished and evolved in the Scandinavian countries. The sport re-emerged onto the world stage as team handball for the 1972 Summer Olympics in Munich. Women's team handball was added at the 1976 Summer Olympics. Effect of Sand training on selected physical fitness among inter collegiate Handball men players. Competitive game requires high level of skill related fitness including reaction time and explosive strength in Handball game to perform frequently higher level of performance. In order to achieve the purpose of the study, thirty (N=30) Handball players were selected from the affiliated colleges of the TNPESU-Chennai. The subjects were randomly selected and their age group ranged from 17 - 25 years. The selected groups were divided into two groups, an experimental group and a control group. The experimental group (EG) underwent the standard of physical exercise training. The control group (CG) was not exposed to any training. Physical exercise is considered as the independent variable. The physical fitness (reaction speed and leg explosive strength) are dependent variables. The statistical technique covariance ANCOVA was used to analyze the pre-test and post-test data of experimental group and control group. The results showed that the physical exercise group had significant improvement ($p \leq 0.05$) in the level of the selected physical fitness such as reaction speed and leg explosive strength compared to the control group.

Keywords: Reaction Speed, Leg Explosive Strength.

ANALYZING THE EFFECTS OF PLYOMETRIC TRAINING ON PHYSICAL PERFORMANCE IN MALE FOOTBALL ATHLETES

***Dr. S. Velkumar.,** Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu, India.

****Dr. P. Muthuveera.,** Assistant Professor, Department of Physical Education, Arul Anandar College, Karumathur, Madurai, Tamil Nadu, India.

ABSTRACT

Plyometrics, also known as jump training, are exercises in which muscles exert maximum force in short intervals of time, with the goal of increasing speed-strength. This training focuses on learning to move from a muscle extension to a contraction in a rapid or "explosive" manner, such as in specialized repeated jumping. Plyometrics are primarily used by athletes, especially martial artists, sprinters, and high jumpers, to improve performance. They are used to a lesser degree in general fitness training. Sebastian, M.M.D.P. (2018) in existing literature highlights the need for a focused investigation into the effects of plyometric training on cardio-respiratory endurance and explosive power among male football players. Additionally, considering the age range of 19 to 24 years in this study, it addresses a crucial developmental phase where players are refining their physical attributes. By identifying and filling this research gap, the study aims to contribute valuable insights to the field of sports science and provide practical implications for training regimens tailored to male football players. The purpose of this study was to examine the "analyzing the effects of plyometric training on physical performance in male football athletes". To achieve this, 30 male football players (N=30) were selected from (RLFA) Reserve Line Football Academy, Madurai District, Tamilnadu, India. The selected variables were cardio-respiratory endurance and explosive power. The subjects' age ranged from 19 to 24 years. The selected subjects were divided into two equal groups, with 15 participants (N=15) in each group: Group I – Plyometric Training Group, Group II – Control Group. The Plyometric Training Group underwent their respective training for one and a half hours per day, three days per week, for eight weeks. The statistical technique Analysis of 't' test was used to analyze the pre-test and post-test data of experimental group and control group. The results showed that the plyometric training Program group had significant improvement ($P \leq 0.05$) in the level of the selected criterion variables such as program motor components such as agility.

Keywords: Plyometric Training, cardio-respiratory endurance.

COMPARITAVE STUDY ON SELECTED PHYSICAL FITNESS VARIABLES BETWEEN FORWARD AND POST BASKETBALL PLAYERS

***Dr. R. Mayildevi.**, Director of Physical Education, Government Arts and Science College, Kunrathur, Chennai.

****Dr. S. Velkumr.**, Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.

ABSTRACT

Basketball is a team sports in which two teams of five players try to score points by throwing or "shooting" a ball through the top of a basketball hoop while following a set of rules. A regulation basketball hoop consists of a rim 18 inches (45.7 cm) in diameter and 10 feet (3.05 m) high mounted to a backboard. A team can score a field goal by shooting the ball through the hoop during regular play. A field goal scores two points for the shooting team if a player is touching or closer to the hoop than the three-point line, and three points (a "3 pointer") if the player is "outside" the three-point line. The team with more points at the end of the game wins, but additional time (overtime) may be issued when the game ends with a tie. The purpose of the study was to comparison of selected physical fitness variables between forward and post Basketball players. To achieve the purpose of the study, twelve players from each playing position namely Forward and Post Basketball players from University of Madras Affiliated Colleges Chennai, Tamilnadu, the subjects were randomly selected as subject and their age ranged from 18 to 25 years. Players who represented intercollegiate level tournaments were selected for this study. The physical fitness variables were selected as dependent variables. The selected criterion variables for the study were assessed by the following standardized test items: Agility was assessed by right boomerang agility run; explosive power was assessed by sargent vertical jump. The experimental design used for this study was static group comparison design. The collected data were statistically analyzed for significant difference using independent 't' test. In these cases, .05 levels of significance were used to test the hypotheses. The shows that the mean values obtained for forward and post players are 12.6725 and 12.9142 respectively and the obtained' test value between the mean is .674 is lesser then the table value of 2.074 with at df 22 at 0.05 level it was concluded that there is no significant difference between forward and post players on agility. The shows that the mean values obtained for forward and post players are .4025 and .3867 respectively and the obtained' test value between the mean is .787 is lesser then the table value of 2.074 with at df 22 at 0.05 level it was concluded that there is no significant difference between forward and post players on explosive power

Keywords: Basketball, shooting, Agility run, explosive power and vertical jump.

INFLUENCE OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES OF MEN TENNIS PLAYERS

***P. Vijayakumar.**, Research Scholar, SRMV Maruthi College of Physical Education, Coimbatore.

****Dr. E. Amudhan.**, Associate Professor, SRMV Maruthi College of Physical Education, Coimbatore.

ABSTRACT

Yoga means union. Etymologically, it is connected to the English word, yoke. Yoga means union with God, or, union of the little, ego-self with the divine Self, the infinite Spirit. Yoga is an art as well as a science. It is a science, because it offers practical methods for controlling body and mind, thereby making deep meditation possible. Yoga is not a system of beliefs. It takes into account the influence on each other of body and mind, and brings them into mutual harmony. So often, for instance, the mind cannot concentrate simply because of tension or illness in the body, which prevent the energy from flowing to the brain. So often, too, the energy in the body is weakened because the will is dispirited, or paralyzed by harmful emotions. Yoga is a very ancient science; it is thousands of years old. The perceptions derived from its practice form the backbone of the greatness of India, which for centuries has been legendary. The truths espoused in the yoga teachings, however, are not limited to India, nor to those who consciously practice yoga techniques. Many saints of other religions also, including many Christian saints, have discovered aspects of the spiritual path that are intrinsic to the teachings of yoga. The purpose of the study was to find out the influence of yogic practices on selected physiological variables of men tennis players. To achieve the purpose of this study 30 men tennis players were selected as subject from Coimbatore district, Tamilnadu. The subjects' age ranged from 17 to 25 years. They were divided into two groups namely experimental group and control group. The fifteen subjects of experimental group (yoga practices) and fifteen were control group. The control group was not given any specific training apart from their regular and the experimental group underwent eight weeks of yogic practices for 5 days per week for 45 minutes per day. The pre and posttests after eight weeks of yogic practices were conducted. The selected variables namely forced vital capacity tested with spirometer and maximum voluntary ventilation tested with spirometer of men tennis players. The collected data were analyzed using 't' ratio to find out the significant difference in the selected variables of experimental group. The statistical analysis showed that the men tennis players of experimental group had significantly improved in all the selected physiological variables. There was no improvement in the control group in all the selected physiological variables.

Key Words: - *Yogic Practices, physiological variables.*

EFFECTS OF FARTLEK TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS OF COLLEGE LEVEL MEN PLAYERS

***Dr. S. Jeyaganesh.**, Assistant Professor, Dr. Sivanthi Aditanar College of Physical Education, Tiruchendur, Tamilnadu.

****Dr. S. Velkumr.**, Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai.

ABSTRACT

Fartlek runs are a very simple form of a long distance run. Fartlek training is simply defined as periods of fast running intermixed with period of slower running. For some people this could be a mix of jogging and sprinting, but for beginners it could be walking with jogging sections added in when possible. Physical fitness is generally achieved through correct nutrition, exercise and rest. Physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities. The purpose of the study was to find out the effects of fartlek training on selected physical fitness components of college level men Cricket players. To achieve this purpose thirty men players studying in the TNPESU were selected as subjects at random. Their age ranged between 18 to 24 years. The selected subjects were divided into two equal groups of fifteen each namely fartlek training group and control group. The experimental group has undergone six weeks of fartlek training, whereas the control group maintained their daily routine activities and no special training was given. The subjects of the two groups were tested on selected physical fitness variables namely speed and flexibility using standardized tests namely 50 mts run and sit and reach test at before and after the training period. The collected data were analyzed statistically through analysis of 't'-ratio to find out the significant difference, if any between the groups. The .05 level of confidence was fixed to test the level of significance which was considered as an appropriate. The results of the study showed that fartlek training group showed significant improvement on speed and flexibility compared with control group.

Key Words: *Fartlek run, jogging, sprinting, speed and flexibility.*

EFFECT OF PROGRESSIVE INTERVEL TRAINING ON SPEED AND AGILITY AMONG HANDBALL PLAYERS

***Dr. M. Senthil Kumar.**, Director of Physical Education, JCT College of Arts and Science, Pichanur, Coimbatore.

ABSTRACT

Interval training is a method of training where the intensity of workout between aerobic and anaerobic training can be increased or decreased. Interval training is a Swedish word, where some suggests that it is originated from fartlek training. The protocol for interval training is to push the body past the aerobic threshold for a few moments and then return to the aerobic conditioning level with the objective of improving the performance. The aerobic threshold is the intensity where the body switches from burning a greater percentage of fat to a greater percentage of carbohydrate and is generally 85% of the maximum heart rate. Interval training is built upon alternating short, high intensity bursts of speed with slower, recovery phases throughout a single work out. The interval workouts can be highly sophisticated and structured training that is designed for an athlete based upon his or her sport, event and current level of conditioning. An interval training workout may even be designed based upon the results of anaerobic threshold testing (AT) that includes measuring the blood-lactate of an athlete during intense exercise. Court Games such as Handball, volleyball, netball etc. and field games such as Football, field hockey have many complex demands that require a combination of fitness, skills, team plays, tactics and strategies and motivational aspects. Despite these complexities, it seems likely that a key area that plays an important role in basketball success is a player's physical fitness and body size. The modern game of Handball has evolved to the point where tall, heavy players are Preferentially recruited to key positions close to the basket, while faster and more 2 agile players are chosen for perimeter positions. The Purpose of the study was to investigate Effect of Progressive interval training on speed and agility among Handball players. The subject was selected from JCT College of Arts and Science, Pichanur, Coimbatore. Their aged varied from 19-21. The subjects were divided into two groups as Experimental Group (n=12) and Control Group (n=12). The experimental group attended Interval training for 8 weeks, whereas the control group did not do any kind of training. The paired sample t-test was used to find out the significant improvement on selected criterion variable's pre and post-test. The analysis of covariance (ANCOVA) was used to find out the significant difference among the groups, if any, separately for each criterion variable. It was found that there was a significant improvement and significant different existed due to the effect of Interval training on speed and agility among Handball players.

Key Words: Interval training, Speed and Agility.

ENHANCING THE SPRINT SPEED AND KEY PERFORMANCE INDICATORS WITH CIRCUIT AND PLYOMETRIC TRAINING AMONG COLLEGE LEVEL ATHLETICS

*Dr. C. Selvakannan., Director of Physical Education, Mount Zion College of Engineering and Technology, Pudukkottai.

ABSTRACT

Sport is intimate, profound and even spiritual. It has reached the root of human existence and, as such, provided an area for the discovery of personal truth. Neither man nor did sport alone provide the completeness by existence. The word “training” means different things in different fields. Training denotes the process of preparation for some task. This process varyingly extends to a number of days and even months and years. The term “Training” is widely used in sports. In an arrow sense training is physical exercise for the improvement of performance. Training involves constructing an exercise programme to develop an athlete for a particular event. This increasing skill and energy capacities need equal consideration. Sports training are the basic form of preparation of sportsmen. Sports training is a pedagogical process, based on scientific principles, aiming at preparing sportsmen for higher performances in sports competitions. The word training means different things in different fields. In sports, the word training means doing physical exercises. The concept is reflected in short terms, which are given to separate components of training or to separate methods or procedures of doing physical exercises. This purpose study restricted to forty-five (N=45) male athletes who were participated in Anna University Zone-16 inter collegiate Athletic meet during the year 2018-2019 were randomly selected as subjects. Their age ranged from 18 to 21 years. The subjects were assigned at random into three groups of fifteen each (n=15). Group-I underwent circuit training, Group-II underwent Plyometric training and Group-III acted as Control. All the subjects were fully informed regarding the nature of the experimental methodology and the subjects gave their consent to participate in this investigation and selected to be measured on the selected subjects on Stride Length. To achieve the purpose of the present study, two training programmes namely circuit Training and plyometric Training were designed scientifically. The scientifically designed programmes were given to the subjects of respective groups such as Group-I and group-II. The detailed procedures of these three training programmes are dealt with in detail. ANCOVA was used to find out the significant difference if any between the groups.

Key Words: *Plyometric Training, Circuit and stride length.*

ADVANCING SPORTS SCIENCE: THE IMPACT OF MODERN TECHNOLOGY ON PROFESSIONAL CAPABILITIES

***Dr. A. Velayutham.**, Librarian, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore.

****Dr & Major. T. Magudeeswaran.**, Librarian (SG) & Head, Research Dept. of Library and Information Science, Chikkaiah Naicker College, Erode.

ABSTRACT

Sports science has undergone a revolutionary transformation with the advent of modern technology. From wearable sensors to AI-driven analytics, contemporary sports technology has reshaped how sports professionals analyze performance, prevent injuries, and optimize training regimens (Bartlett, 2014). This paper examines how modern sports technology benefits sports science professionals, highlighting its applications, advantages, challenges, and future trends. Sports technology has evolved from rudimentary performance tracking to advanced biomechanical assessments. Historically, coaches relied on subjective observations, whereas today's technology provides precise data through motion capture, AI, and big data analytics (McGarry, O'Donoghue, & Sampaio, 2013). Innovations such as GPS tracking, virtual reality (VR) training, and wearable biometric devices have significantly enhanced the understanding of an athlete's capabilities and limitations. Wearable technology, including heart rate monitors, GPS trackers, and smartwatches, allows real-time monitoring of an athlete's physiological responses (Fuss, Subic, & Ujihashi, 2008). These tools provide accurate data on speed, endurance, hydration levels, and fatigue, enabling sports scientists to tailor training programs for peak performance. Biomechanical analysis and AI-driven injury prediction models help identify movement patterns that may lead to injuries. Technologies like force plates and electromyography (EMG) assist in assessing muscle imbalances and optimizing rehabilitation protocols, ensuring athletes recover effectively (Collins, Richards, & Button, 2022). Modern sports technology has significantly enhanced the capabilities of sports science professionals by providing advanced tools for performance analysis, injury prevention, and personalized training. The integration of artificial intelligence (AI), wearable technology, and big data analytics has transformed how athletes are monitored and coached. This paper explores the evolution, applications, benefits, challenges, and future trends of sports technology, emphasizing its crucial role in optimizing athletic performance. While the adoption of these technologies presents challenges such as high costs and data privacy concerns, their potential to revolutionize sports science remains undeniable.

Keywords: *Sports Technology, Sports Science, Artificial Intelligence, Wearable Devices, Performance Analysis, Injury Prevention, Data Analytics.*

EMERGING NEW TRENDS IN SPORTS SCIENCE FOR PERFORMANCE

***Dr. B. Arunprasath.,** Physical Education Teacher, T. A. T Kalanilayam Middle School, Coimbatore.

****Sri. S. Saphagiri.,** Physical Director, SRMV Swami Shivananda Hr. Sec. School, Coimbatore.

ABSTRACT

abreast of emerging trends and technologies that promise to reshape the landscape. This year heralds' significant advancements, and understanding them will be crucial for thriving in this dynamic field. Wearable devices, already prevalent, are set to become smaller, less intrusive, and more accurate, offering new avenues for data collection. This evolution facilitates a vital dialogue between team-driven and athlete-driven applications of these technologies, a theme we'll revisit in subsequent trends. In sports, measuring is essential. The science surrounding physical activity and sport has been experiencing unstoppable growth for more than 30 years. Increasing the performance of athletes via strategies and recommendations backed by scientific evidence has become a necessity. Many sports and disciplines are taking advantage of the support provided by empirical evidence to increase performance in competitions. This is also the case for sports training, an area where groups and individuals are open to new methodologies and proposals. The future of sports is shaped by key trends in Wearable technology, Artificial intelligence, Performance tracking, Virtual reality (VR), Personalized training. These developments are driving a more nuanced approach to athlete development and performance optimization. Wearable technology in sports is the use of electronic devices to collect data on an athlete's performance and physical condition. This data can help athletes and their coaches improve performance, prevent injuries, and make informed decisions. Artificial intelligence (AI) is used in sports to analyse data and provide insights to improve player performance, safety, and fan experience. AI can also help with scouting, recruiting, and officiating. Performance tracking in sports is the process of collecting, analysing, and interpreting data about an athlete's or team's performance. The goal is to identify areas for improvement and help athletes perform at their best.

Keywords: sports science, advancements, and understanding.

THE ROLE OF PODCASTS IN MODERN SPORTS TRAINING: A DIGITAL LEARNING APPROACH

***Dr. N. Uma.**, Librarian, Justice Basheer Ahmed Sayeed College for Women, Chennai.

****Dr. A. Velayutham.**, Librarian, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education Coimbatore.

*****Dr. & (Major) T. Magudeeswaran.**, Librarian (SG) & Head, Research Department of Library and Information Science, Chikkaiah Naicker College, Erode.

ABSTRACT

Traditional sports training methodologies center on physical conditioning, structured coaching sessions, and video analysis. However, the rise of digital learning tools has fostered a more holistic approach to athlete development (Côté & Gilbert, 2009). Podcasts, an auditory medium, offer athletes, coaches, and sports professionals an accessible, flexible, and engaging platform to enhance knowledge, learn strategies, and stay abreast of advancements in sports science (Reed, 2020). This paper explores how podcasts can improve sports training effectiveness, specifically examining their impact on skill development, cognitive retention, and psychological preparedness. This study focused on podcasts featuring expert interviews, instructional content, and tactical analyses relevant to the participants' respective sports (specified in the Methodology section). However, digital learning tools like podcasts have emerged as valuable supplements. This study investigates the effectiveness of podcasts in enhancing sports training, focusing on their impact on cognitive retention, psychological preparedness, and skill development. Using a mixed-methods approach, data were collected from 100 athletes across diverse sports over three months through surveys, interviews, and performance assessments. Results indicate that podcasts significantly improve knowledge retention (by 40%), enhance mental resilience, and foster strategic thinking. While acknowledging limitations such as the absence of visual demonstrations, this study highlights the accessibility and flexibility of podcasts as a learning tool. It recommends integrating podcasts with visual learning resources and interactive platforms for maximized impact. Future research should explore personalized podcast content via AI and conduct comparative studies with video-based learning.

Keywords: *Sports training, digital learning, podcasts, cognitive retention, skill development, psychological preparedness.*

IMPACT OF PILATES TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS AMONG COLLEGE MEN BADMINTON PLAYERS

***Dr. R. Arivazhagan.**, Teaching Assistant (PED), Dr. MSS Agriculture College and Research Institute, Thanjavur.

****Dr. V. Vallimurugan.**, Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.

ABSTRACT

Badminton is a fast-paced sport that requires a combination of agility, strength, endurance and flexibility. Players must possess explosive power in their arms for effective smashes and clears, as well as flexibility to enhance their range of motion and prevent injuries. Pilates training, a widely recognized exercise method, focuses on core strength, flexibility, balance and overall body control, making it a suitable training approach for badminton players. This study aims to investigate the effects of Pilates training on selected physical fitness components, specifically arm explosive power and flexibility, among college men badminton players. By incorporating Pilates exercises into their training regimen, players may experience enhanced muscular endurance, improved mobility and greater power generation. Pilates training is a widely used conditioning method that enhances core strength, flexibility, and muscular endurance, all of which are essential for badminton performance. It is particularly effective in improving arm explosive power and flexibility, which contribute to better shot execution, injury prevention, and overall athletic efficiency. This study aimed to examine the effects of a six-week Pilates training program on selected physical fitness components, specifically arm explosive power and flexibility, among college men badminton players. Thirty (N=30) college-level male badminton players from Dr.MSS Agriculture College and Research Institute, Eachangkottai, Thanjavur, Tamil Nadu, participated in the study. The players were divided into an experimental group (n=15) and a control group (n=15). The experimental group underwent a structured Pilates training program, while the control group followed their regular routine without additional training. The dependent t-test was used to analyze pre-test and post-test differences, with significance set at 0.05. The findings indicated significant improvements in arm explosive power ($t = 3.49, p \leq 0.05$) and flexibility ($t = 3.60, p \leq 0.05$) in the experimental group compared to the control group. A six-week Pilates training program positively influences arm explosive power and flexibility in badminton players, making it a beneficial addition to their conditioning regimen.

Keywords: *Pilates training, Arm Explosive Power, Flexibility, Badminton, Physical Fitness.*

ROLE OF SPORTS PSYCHOLOGY IN SPORTS PERFORMANCE

***Dr. S. Sivasankar**, Director of Physical Education, Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore.

****Dr. T. Kannappan**, Physical Education Teacher, Government higher secondary school, Seripalayam, Coimbatore.

****Dr. C. Selvaraj**, Physical Education Teacher, Government high school, Kaikolapalayam, Erode.

ABSTRACT

Sport psychology is a field that applies psychological expertise and abilities to enhance athlete's performance and well-being, explore developmental and social factors in sports involvement, and tackle systemic issues related to sports environmental and organizations. Sports psychology bridges the gap between physical ability and optimal performance on the field or court by helping athletes manage their mental state, improving focus, motivation, and confidence, and enabling them to perform at their best under pressure. It also helps athletes overcome mental barriers and deal with obstacles like anxiety, setbacks, and distractions. Important facets of sports psychology that improve performance include: Sports psychologists assist athletes in becoming more "podium prepared" or in achieving peak performance "on the day" impart skills and strategies to manage thoughts emotions and focus, promote effective team dynamics and cultivate leadership and communication abilities. Sports psychology investigates the psychological and mental elements that affect sports, physical activities and the application of this understanding within physical education. It is an interdisciplinary field that integrates insights from both Kinesiology and psychology. Athletes might respond both physically and mentally in a manner that could negatively affect their performance because of the increased stress from competitions. They could feel tension, rapid heartbeat, chills, anxiety about the competition's result and struggle to concentrate on the task. Coaches are increasingly engaging with the field of sports psychology, especially regarding competitive anxiety research. Focus of revolved around techniques that athletes can employ to maintain calmness and enhance their performance. Once learned, these techniques assist athletes in relaxing and focusing their attention effectively on the preparation task. Sports psychology assists athletes in improving performance through various mental strategies. Techniques such as visualization, self – talk, and relaxation can athletes to overcome challenges and succeed in their goals.

Key words: Psychology, Kinesiology, Stress, Anxiety and Attention.

ANALYSIS OF PROPRIOCEPTIVE REHABILITATION EXERCISE PROGRAMME ON RANGE OF MOTION IN KNEE INJURED PLAYERS

***Mr. C. Prakash Raj.**, Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.

****Dr. T. Radhakrishnan.**, Professor and Head, Department of Physical Education, Bharathiar University, Coimbatore.

ABSTRACT

Proprioception refers to the body's ability to sense movement within joints and joint position. This ability enables us to know where our limbs are in space without having to look. It is important in all everyday movements but especially so in complicated sporting movements, where precise coordination is essential. This coordinated movement is a result of the normal functioning of the proprioceptive system. Proprioceptive Movements in your classes and training sessions can enhance the patient body awareness and movement efficiency. Proprioception is an automatic sensitivity mechanism in the body that sends messages through the central nervous system (CNS). The CNS then relays information to rest of the body about how to react and with what amount of tension. Proprioceptive rehabilitation plays a crucial role in restoring joint stability, muscle strength and overall functional mobility in individuals with knee injuries. This study aimed to analyze the effectiveness of a proprioceptive rehabilitation exercise program on the range of motion (ROM) in knee-injured players. Twenty participants aged 21 to 25 years, suffering from various knee injuries, were randomly selected from Bharathiar University, Coimbatore, India. The participants underwent a six-week rehabilitation program, comprising three sessions per week, with gradually increasing intensity from 55% to 80% of workload. Pre-test and post-test ROM measurements were recorded for both injured and non-injured legs and statistical analysis was conducted using a paired t-test. The results demonstrated significant improvements in the ROM of both the injured and non-injured legs following the intervention. The t-values for the non-injured and injured legs were 7.34 and 8.75, respectively, indicating a statistically significant enhancement ($p < 0.05$). These findings align with previous research suggesting that proprioceptive training enhances neuromuscular function, reduces the risk of re-injury and aids in knee rehabilitation. The study concludes that a structured proprioceptive rehabilitation program effectively improves ROM in knee-injured players, promoting better functional recovery and athletic performance. Future research should explore long-term effects and different training intensities for optimizing rehabilitation outcomes.

Keywords: *Proprioception, Rehabilitation exercise, Range of motion, Knee injury.*

EFFECT OF CIRCUIT WEIGHT TRAINING ON SELECTED BIO MOTOR COMPONENTS AMONG COLLEGE MEN BADMINTON PLAYERS

***Mr. G. Karthikeyan.,** Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.

****Dr. V. Vallimurugan.,** Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.

ABSTRACT

The training is a process of preparing an individual for any event or an activity or job. Usually in sports we use the term sports training which denotes the sense of preparing sportspersons for the highest level of performance. Sports training are the physical, technical, intellectual, psychological, emotional and moral preparation of an athlete or a player by means of physical exercises. Sports training also consists of all those learning influences and processes that are aimed at enhancing sports performance Harre (1986) said, "Sports training, based on scientific knowledge, and is a pedagogical process of sports perfection which through systematic effect on psycho-physical performance ability. The purpose of the study was designed to find out the effect of circuit weight training on selected bio-motor components among college men badminton players. To Carry out the study, thirty (N=30) men badminton players were selected as subjected from Bharathiar University, Coimbatore, Tamilnadu, India. Their ages ranged from 18 to 21 years. The selected subjects were divided into two equal groups, experimental group and control group (n=15 each). The experimental group underwent circuit weight training for three days per week over a period of six weeks. Meanwhile, the control group did not receive any training beyond their routine practice. Speed, strength and cardio respiratory endurance were assessed before and after the six-week treatment period. The data collected from the subjects were statistically analyzed using the 't' ratio. The results of the study indicated that the speed, strength and cardio respiratory endurance of the badminton players improved due to the six weeks of circuit weight training.

Keywords: *Circuit weight training, Speed, Strength Cardio respiratory endurance and Badminton.*

EFFECT OF JUMP ROPE TRAINING ON SELECTED PHYSICAL VARIABLE AMONG COLLEGE MEN HOCKEY PLAYERS

***Mr. G. Muthukumar.,** Ist M.P.Ed, Cheran College of Physical Education, Karur.

****Mr. M. Pradeep.,** Ist M.P.Ed, Cheran College of Physical Education, Karur.

*****Dr. V. Amutha.,** Principal - Cum - Syndicate Member, Cheran College of Physical Education, Karur.

ABSTRACT

Physical inactivity and increased sedentary nature of our daily living habits are a serious threat to the body, causing major deterioration in normal body functions. Such common and serious medical problems as coronary heart disease, hypertension, obesity, anxiety, depression and lower back problems have been either directly or indirectly associated with lack of physical activity. Biologically man tends to conserve energy. Along with it, advancement in technology and automation, modern civilization consciously or subconsciously has become less active and lazier. The purpose of this study was to find out the effect of Jump Rope Training on selected physiological variables among college men hockey players. To achieve the purpose of the present study 30 men students were selected as samples from Cheran college of physical education, Punnam Chathiram, Karur, Tamilnadu, India. They were randomly selected as subjects and their age were between was between 17-21 years. Thirty subjects were selected at random and subjects were divided into two equal groups designed one experimental group and the other Control Group. Thus each group consisted of 15 subjects. Each subject was oriented in the procedure to the administration of the test. In order to ensure full co-operation from the subjects, the scholar explained the requirements, importance of this study and the subjects voluntarily agreed to undergo the prescribed tests and training. The following physical variables namely Cardio Respiratory Endurance, Abdominal Muscular Strength were selected as criterion variables. The measured by using cooper 12 minutes run and walk and sit up test is used. The collected data were analyzed statistically through analysis of 't' ratio to find out the significant difference, if any between the groups. The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate. The results of the study showed that there were significant differences exist between Jump Rope Training on selected physiological variables among college men hockey players. To achieve the group and control group on Cardio Respiratory Endurance, Abdominal Muscular Strength and also a yogic practice group showed significant improvement on Cardio Respiratory Endurance, Abdominal Muscular Strength when compared to control group.

Keywords: Jump rope training, Cardio Respiratory Endurance, Abdominal Muscular Strength.

EFFECT OF SPECIFIC TRAINING ON SELECTED PHYSICAL VARIABLE AMONG COLLEGE MEN HANDBALL PLAYERS

***Mr. K. Siva.,** 1st M.P.Ed, Cheran College of Physical Education, Karur.

****Dr. V. Amutha.,** Principal – Cum - Syndicate Member, Cheran College of Physical Education, Karur.

ABSTRACT

Training is the way toward sending and accepting information identified with critical thinking Training is ‘the organized procedure by which people learn knowledge and/or skill for a definite purpose’. It includes educating and learning exercises with a basic role of assisting the student with procuring and applies the information, perspectives, capacities, and abilities required by a specific occasion. Training improves the knowledge, learning skill and level of understanding, which polishes the insight. Training and education differs each other. Training Improves the knowledge, skill and abilities of a particular person in particular event. But education helps improves the general knowledge and motivating the person to understand the environment, which imparted in schools and colleges. The purpose of this study was to find out the effect of Specific training on selected physical variables Among college men handball players. To achieve the purpose of the present study 30 men students were selected as samples from Cheran college of physical education, Punnam Chathiram, Karur, Tamilnadu, India. They were randomly selected as subjects and their age were between was between 18-21 years. Thirty subjects were selected at random and subjects were divided into two equal groups designed one experimental group and the other Control Group. Thus each group consisted of 15 subjects. Each subject was oriented in the procedure to the administration of the test. In order to ensure full co-operation from the subjects, the scholar explained the requirements, importance of this study and the subjects voluntarily agreed to undergo the prescribed tests and training. The following physical variables namely Speed and Agility were selected as criterion variables. The measured by using 50meter dash and Shuttle run test is used. The collected data were analyzed statistically through analysis of ‘t’ ratio to find out the significant difference, if any between the groups. The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate. The results of the study showed that there were significant differences exist between Specific training group and control group on Body Mass Index, Breath holding time and also a Specific training group showed significant improvement on 50meter dash and Shuttle run when compared to control group.

Keywords: *Specific training, 50meter dash, Shuttle run.*

EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES AMONG SCHOOL OBESE GIRLS STUDENTS

*Mr. M. Robin Durai., 1st M.P.Ed, Cheran College of Physical Education, Karur.

**Mr. D. Kaliraj., 1st M.P.Ed, Cheran College of Physical Education, Karur.

***Dr. V. Amutha., Principal – Cum - Syndicate Member, Cheran College of Physical Education, Karur.

ABSTRACT

The science of yoga works on physical, mental emotional, psychic and spiritual aspects of a person. When imbalance is experienced at this level, the organs, muscles and nerves no longer functions in harmony, rather they act in opposition to each other. Therefore, yoga aims at bringing the different bodily functions into perfect co-ordination so that they work for the good at the whole body. The word "yoga" comes from the Sanskrit root yuj, which means "to join" or "to yoke". Yoga is a practical aid, not a religion. Yoga is an ancient art based on a harmonizing system of development for the body, mind, and spirit. The continued practice of yoga will lead you to a sense of peace and well-being, and also a feeling of being at one with their environment. This is a simple definition. Practice of yoga makes the body strong and flexible; it also improves the functioning of the respiratory, circulatory, digestive, and hormonal systems. The purpose of this study was to find out the effect of yogic practice on selected physiological variables school level overweight girls students. To achieve the purpose of the present study 30 men students were selected as samples from Cheran Mat. Hr. Sec. School, Punnam Chathiram, Karur, Tamilnadu, India. They were randomly selected as subjects and their age were between was between 14-17 years. Thirty subjects were selected at random and subjects were divided into two equal groups designed one experimental group and the other Control Group. Thus each group consisted of 15 subjects. Each subject was oriented in the procedure to the administration of the test. In order to ensure full co-operation from the subjects, the scholar explained the requirements, importance of this study and the subjects voluntarily agreed to undergo the prescribed tests and training. The following physical variables namely Body Mass Index, Breath holding time were selected as criterion variables. The measured by using BMI and Breath holding time test is used. The collected data were analyzed statistically through analysis of 't' ratio to find out the significant difference, if any between the groups. The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate. The results of the study showed that there were significant differences exist between yogic practice group and control group on Body Mass Index, Breath holding time and also a yogic practice group showed significant improvement on Body Mass Index, Breath holding time when compared to control group.

Keywords: *Yogic Practice, Body Mass Index, Breath Holding.*

IMPACT OF FUNCTIONAL STRENGTH TRAINING ON SELECTED PHYSICAL VARIABLES AMONG YOUNG ATHLETES

*S. Selvaganapathy., Research Scholar, D. B. Jain College, Thoraipakkam, Chennai.

**Dr. R. Desingurajan., Director of Physical Education, D. B. Jain College, Thoraipakkam, Chennai.

ABSTRACT

Functional strength training (FST) has gained significant attention in recent years due to its ability to enhance athletic performance through exercises that simulate real-world movements, improving the body's ability to perform everyday activities as well as sport-specific actions (Behm & Sale, 1993). FST emphasizes multi-joint, dynamic exercises that target core stability, balance, agility, and overall strength. This training approach aims to improve the body's functional capacity by promoting muscular coordination and strengthening the kinetic chain, which is essential for preventing injuries and enhancing performance (Kibler, Press, & Sciascia, 2006). Elite athletes often engage in training regimens that focus not only on specific sport skills but also on the development of physical qualities such as strength, endurance, and agility, which contribute to improved athletic performance (Lloyd & Oliver, 2012). Functional strength training, with its emphasis on explosive power and movement efficiency, has shown to be effective in improving performance in sports that require high levels of power, agility, and coordination (Stone, Stone, & Sands, 2007). This study aims to assess the impact of functional strength training on selected physical variables among elite athletes. To achieve the purpose of this study 30 elite athletes (ages 18-25) from various sports disciplines participated in a 6-week functional strength training program designed to enhance core stability, dynamic strength, and overall movement efficiency. The program included exercises targeting multi-joint movements, agility, power, and coordination. Pre- and post-training assessments were conducted to evaluate improvements in strength (1RM squat test), agility (T-test), and power (vertical jump test). The results indicated significant improvements in all physical variables assessed. Statistical analysis revealed significant increases in strength, agility, and power ($p < 0.05$) among the athletes following the training program. The findings suggest that functional strength training can effectively enhance key physical attributes critical for athletic performance, contributing to higher performance levels and injury prevention. These results support the integration of functional strength training into training regimens for elite athletes. Future research should explore the long-term effects of functional strength training on sport-specific performance and injury recovery.

Keywords: *Functional strength training, elite athletes, strength, agility, power, performance enhancement.*

EFFECT OF PLYOMETRIC TRAINING ON SELECTED PHYSICAL FITNESS COMPONENTS AND BODY COMPOSITION AMONG BASKETBALL PLAYERS

***Dr. J. Suresh.,** Director of Physical Education, KG College of Arts and Science, Coimbatore

****M. Vivek.,** Research Scholar, Bharathiar University, Coimbatore

*** **U. Jeeya.,** Physical trainer, Hindustan College Arts and Science, Coimbatore.

ABSTRACT

The game of basketball as it is known today was created by Dr. James Naismith in December 1891 in Springfield, Massachusetts, to condition young athletes during cold months. Naismith was a physical education instructor at YMCA International Training School (now known as Springfield College) in Springfield, Massachusetts. Upon the request of his boss, Naismith was tasked to create an indoor sports game to help athletes keep in shape in cold weather. It consisted of peach baskets and a soccer style ball. He published 13 rules for the new game. He divided his class of eighteen into two teams of nine players each and set about to teach them the basics of his new game. The objective of the game was to throw the basketball into the fruit baskets nailed to the lower railing of the gym balcony. Every time a point was scored, the game was halted so the janitor could bring out a ladder and retrieve the ball. After a while, the bottoms of the fruit baskets were removed. The purpose of the study was to find out the effect of plyometric training on selected physical fitness components, body composition among basketball players. To achieve the purpose of the present study, forty-five men basketball players from Ernakulam district, Kerala state, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into three equal groups of fifteen subjects each. Group I acted as Experimental Group I (Plyometric Training), Group II acted as Experimental Group II (Functional Core Training) and Group III acted as Control Group. The requirement of the experiment procedures, testing as well as exercise schedule was explained to the subjects so as to get full co-operation of the effort required on their part.

Keywords: Plyometric, Core Training.

EFFECT OF TABATA TRAINING ON SELECTED HEALTH RELATED PARAMETERS OF SCHOOL GIRLS BASKETBALL PLAYERS

***P. Kaviyarasi.**, Research Scholar, Bharathiar University, Coimbatore.

****K. R. Jeevan.**, Research Scholar, Bharathiar University, Coimbatore.

*****Dr. P. Manju Pushpa.**, Assistant Professor, Bharathiar University, Coimbatore.

ABSTRACT

Physical fitness is essential for athletes, especially young basketball players, to enhance their performance and maintain overall health. Among various training methods, high-intensity interval training (HIIT) has gained popularity for its time efficiency and effectiveness. Tabata training, a specific form of HIIT involving 20 seconds of intense exercise followed by 10 seconds of rest for multiple intervals, is known for improving both aerobic and anaerobic fitness. This study aimed to evaluate the impact of an eight-week Tabata training program on selected health-related physical fitness parameters, specifically cardiorespiratory and muscular endurance, in school-level basketball players. This study involved 40 school-level basketball players aged 14-17 from Alvernia School, Coimbatore, divided into an experimental group (Tabata training) and a control group (no additional training). Variables included cardiorespiratory and muscular endurance, measured using the Cooper 12-minute run and sit-up tests, respectively. A pilot study established training intensity, and subjects underwent a structured 8-week Tabata program (three sessions per week, 45 minutes each). Data were collected pre- and post-training and analyzed using paired t-tests at a 0.05 significance level. The training protocol emphasized progression and specificity, employing a variety of interval-based exercises to enhance fitness parameters. This study evaluated the impact of an eight-week Tabata training program on cardiorespiratory and muscular endurance in 40 school-level basketball players (ages 14-17). Participants were randomly assigned to an experimental group (Tabata training) or a control group. Cardiorespiratory endurance (Cooper 12-minute test) and muscular endurance (1-minute sit-ups) were assessed pre- and post-training. The experimental group showed significant improvements, with t-ratios of 14.68 and 21.20, respectively, surpassing the critical value (2.093). The control group showed no significant changes. The study concluded that Tabata training is effective in enhancing fitness and recommended its inclusion in sports training programs.

Keywords: *Tabata training, Physical fitness, high-intensity interval training, cardiorespiratory and muscular endurance.*

IMPACT OF CIRCUIT TRAINING ON HOCKEY PLAYERS EXPLOSIVE POWER

* **Dr. V. Saminathan.**, Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.

****G. Mouliswaran.**, Research Scholar, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.

ABSTRACT

Circuit training is a useful technique that requires coordination in addition to some initial planning. Because it makes conditioning enjoyable and difficult through competition with teammates, athletes find it motivating. Circuit training is an ongoing set of exercises designed to enhance endurance and as many other aspects of physical fitness as possible. Six to twelve stations are usually up. The continuous nature of the performance is taken into account when choosing and ordering the activities within a circuit lap. Workouts involving circuit training can focus on the arms, legs, or chest, or they can target the entire body. Furthermore, circuit training exercises can emphasise aerobics, strength training, or a mix of the two; the options are essentially endless. The purpose of the study was to investigate the effect of circuit training on explosive power among hockey players. In this study, 30 students from Maruthi College of Physical Education, Coimbatore were selected as the subjects for this study. They were divided into two groups of fifteen each and assigned as control and experimental group. Experimental treatment was applied only to the experimental group for a period of six weeks. The control group was not given experimental treatment. The circuit training was given thrice a week. After six weeks the final performance of both the control and experimental groups were taken. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by ANCOVA. The level of significance was fixed at 0.05 level of confidence for the degree of freedom 1 and 14. It was observed that the experimental group showed significant improvement on explosive power.

Keywords: *Circuit training, Explosive Power.*

EFFECT OF THE SPECIFIC DRILLS UNDERLYING FUNDAMENTAL SKILLS OF VOLLEYBALL BETWEEN THE STUDENTS IMPROVING IN THE SELECTED COORDINATIVE ABILITIES BETWEEN THE MODERATE LEVEL AND HIGH LEVEL OF FITNESS

***Dr. S.T.N. Rajeswaran.**, Professor and Director i/c, Department of physical Education, Bharathiar University, Coimbatore.

****T. A. Manivannan & S. Dharani.**, Research Scholar, Bharathiar University, Coimbatore.

*****Dr. P. Sridar.**, Director of Physical Education, School of Distance Education, Bharathiar University, Coimbatore.

ABSTRACT

Fundamental motor skills are common motor activities with specific observable patterns. The mastery of fundamental motor skill has been purported as contributing to children's physical, cognitive and social development and is thought to provides the foundation of for an active life style commonly develop in childhood and subsequently refined in to context-and sport-specific skills, the include logo motor (e.g. Running and hopping), manipulative or object control (e.g. Catching, and throwing) and stability (e.g. Balancing and twisting) skills school-and community-based programs that include developmentally appropriate fundamental movements skills learning experiences delivered by physical education specialists highly trained classroom teacher significantly improve fundamental movement skill proficiency in school children. Similar relationship can be detected among other fundamental motor skills and specific sport skills and movements. The purpose of the present to study was to find out the effect of the specific drills underlying fundamental skills of volleyball between the students improving in the selected coordinative abilities between the moderate level and high level of fitness. A total of thirty subjects (N=30), high level (15) and low level (15) aged between 11 and 14 years, were selected from the Maruthamalai Devasthanam School, Coimbatore. The participants were assessed on their balance and hand eye co-ordination. The balance was measured by the stork balance test and hand-eye coordination was assessed by the alternative hand wall pass and. Pre-test results were recorded for both groups, with the moderate-level group serving as a constant. After six weeks of training, post-test results were collected. The collected data was analysed using an analysis of variance (ANOVA) at a 0.05 level of confidence. The results indicated that specific skill training had a significant influence on improving balance and hand-eye coordination. It was further inferred that the F-value analysis confirmed the efficiency of the specific skill training, conducted three days a week over six weeks, in enhancing fundamental volleyball skills.

Keywords: hand eye co-ordination, balance, volleyball players

EFFECT OF ZUMBA AND AEROBICS ON SELECTED PHYSIOLOGICAL BODY COMPOSITION AND FITNESS VARIABLES SCHOOL GIRLS

***M. Murugan.,** Research Scholar, Physical Director KGISL, Coimbatore.

***Dr. J. Suresh.,** Department of Physical Education KG College of Arts and Science, Coimbatore.

***Dr. M. Manogaran.,** Department of Physical Education, PPG College of Arts and Science, Coimbatore.

ABSTRACT

People who are engaged in some professions that are quite time consuming, cannot afford to devote time for games and sports. The maximum effort they can come up with is to join a Gym. But soon they develop boredom. Aerobics or Zumba can be an interesting workout in such situation. Commonly, people in general prefer to dance along with music. Aerobics and Zumba provides them with the scope. The strict grammars of dance lessons are not followed here. Just people are required to catch up the rhythm of the music that is played. Aerobics and Zumba is thus a fun-packed physical fitness regime. Once can dance along with some music for fun and can retain his or her physical fitness. Aerobics is a type of exercise which is performed in the presence of oxygen. The term AEROBIC was first introduced by Dr. Kenneth H. Copper, an Exercise Physiologist. Aerobics and Zumba both are under aerobic exercise. Aerobics is a form of physical exercise that combines all rhythmic exercise, stretching, dancing and many more. It is usually performed to music. The main objectives of this rhythmic exercise is to improve cardio-vascular endurance, flexibility, muscular strength and over all physical fitness. The Purpose of the study (N = 90) young working women age ranged between 16 to 18 years were selected at random from city, Tamil nadu, as subjects for the study. Total subjects were divided into three equal groups, such as Aerobics group, Zumba group, and Control group. Each group was consisted 30 subjects. The age of the subjects was recorded from MP/ School final/ 10th Class Board Exam Admit card. All the subjects were non vegetarian.

Keywords: Zumba Training, Aerobics Training.

ASSESS THE ROLE OF SKILL - FOCUSED TRAINING VERSUS FITNESS-FOCUSED TRAINING ON OVERALL PHYSICAL FITNESS IN BASKETBALL PLAYERS

*Mr. C. Dellus., Research Scholar, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.

ABSTRACT

Team sports players are required to perform repeated maximal or near-maximal efforts to develop power, acceleration, speed and speed endurance. Previous research has demonstrated that aerobic fitness is positively correlated with the ability to recover from high-intensity efforts, with significant implications for successful physical performance during competition (Tomlin and Wenger, 2001; Vazquez-Guerrero et al., 2018). A substantial body of research has been conducted to better understand the biomechanical and physiological benefits of repeated-sprint training stimuli. The objective of this study was to investigate the impact of a varied basketball training program on selected physical fitness variables among school-level male basketball players. For this investigation, sixty subjects were selected and divided into four equal groups of fifteen each (N=15), comprising three experimental groups and one control group. The experimental groups underwent respective training protocols, whereas the control group did not engage in any specific research training for the duration of twelve weeks. Pre- and post-tests were conducted before and after the training period for all four groups and were statistically analyzed to determine any significant improvements in selected variables among the subjects due to the training. Two experimental groups underwent training for a period of 12 weeks. The subjects were evaluated on the physical fitness component of Change of Direction (COD). Analysis of covariance was employed to identify significant differences, if any, among the experimental groups and control group. 'F' ratios were computed to determine the variation in the groups. The 't' ratio was applied to ascertain significant improvements in all variables across groups. In all cases, a 0.05 level of confidence was established to test for significance, which was deemed appropriate. In the present study, ANCOVA was applied to interpret the effect of physical fitness training, repeated sprint training, and game-specific training on selected physical fitness variables among school-level male basketball players. The results obtained demonstrated that the training on change of direction produced significant improvements among the experimental groups.

Keywords: *Fitness training, repeated sprint training and Change of direction.*

INVESTIGATION ON THE CHANGES OF TIDAL VOLUME DUE TO DIFFERENT INTENSITIES OF CARDIAC CIRCUIT EXERCISES AMONG OBESE MALE STUDENTS

***Dr. K. Balamurugan.,** Assistant Professor and Head, Department of Physical Education, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.

****Dr. V. Surya.,** Sports Physiotherapist, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.

ABSTRACT

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. Cardio exercises (also known as endurance activities, aerobic or cardio-respiratory exercise) is physical exercise of low to high intensity that depends primarily on the aerobic energy-generating process. "Cardio" is defined as "relating to, involving, or requiring free oxygen", and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism. The purpose of present study was to find out investigation on the changes of tidal volume due to different intensities of cardiac circuit exercises among obese male students. To achieve this purpose, the study is restricted to 60 obese male students from various departments (except physical education and music) of Annamalai University, Chidambaram, Tamil Nadu. The age of the subjects ranges between 18-25. The number of groups for the study was delimited to four, namely three experimental and one control groups. Group - I (n = 15) underwent low intensity cardiac circuit exercises for three days (alternative days) per week, group - II (n = 15) underwent medium intensity cardiac circuit exercises for three days (alternative days) per week, group - III (n = 15) underwent high intensity cardiac circuit exercises for three days (alternative days) per week for twelve weeks and group – IV (n = 15) acted as control. Prior and after the training tidal volume measured by expirograph. The statistical tool used for the present study is Analysis of covariance (ANCOVA). If obtained 'F' ratio is significant, Scheffe's test used as a post hoc test to find out the differences among the groups. The result of the study was a significant altered on tidal volume after twelve weeks of low, medium and high intensities of cardiac circuit exercises. However, the different was favour of experimental groups.

Keywords: Obesity, Tidal Volume and Circuit exercises.

INFLUENCE OF SPECIFIC FITNESS TRAINING ON AGILITY AND STRENGTH ENDURANCE OF COLLEGE MEN CRICKET BEGINNER'S

***Dr. M. Ramajayam.,** Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, Sri Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore.

****Dr. K. Ketheeswaran.,** Senior Lecturer, Sports Science Unit, University of Jaffna, Sri Lanka.

ABSTRACT

Cricket is the most popular game and the richest game in the history of all ball games. In cricket, offensive (batting) principles include scoring runs, avoiding getting out or defending the wicket (staying in), and hitting into space to achieve these offensive goals. Defensive (bowling and fielding) principles include restricting runs scored, getting batters out, and preventing hitting into space to achieve these defensive goals. The simple offensive goals in cricket are to hit the ball into the field so that it eludes the fielders and to not get out. To achieve the purpose of the study, thirty (N=30) subjects were selected from the Faculty of General and Adapted Physical Education and Yoga, Ramakrishna Mission Vivekananda Educational and Research Institute, Periyanaickenpalayam, Tamil Nadu. The participants, aged men 21 to 25 years, were divided into two groups: Experimental Group-I, consisting of fifteen male subjects who underwent specific fitness conditioning workouts training for 12 weeks (5 days per week, from 4:00 PM to 5:00 PM), and Control Group-II, also consisting of fifteen male subjects who continued with their regular routines without additional training. The selected variables for the study were agility, measured using (4 x 10) shuttle run, and strength endurance, assessed using sit ups. After completing twelve weeks of training, post-test data were collected, and both pre-test and post-test scores were analyzed using the dependent t-test to determine if there had been a significant improvement and analysis of covariance (ANCOVA) to determine whether there had been a significant difference between the groups with the level of confidence set at 0.05. The results revealed that the experimental group showed a significant improvement in agility and strength endurance, attributed to the specific fitness training program. However, no significant changes were observed in the control group for the selected variables.

Keywords: *Specific Fitness Training Program, Agility and Strength Endurance.*

COMPARISON OF SPEED AND FLEXIBILITY BETWEEN HANDBALL AND VOLLEYBALL PLAYERS

*Dr. P. Selvakumar., Physical Director, University College of Engineering, Thirukkuvalai, Nagapattinm, Tamilnadu, India.

ABSTRACT

Team handball is played between two teams of 7 players on a rectangular court. Players move the ball by passing or dribbling, and only the goalkeeper may kick the ball. Running more than three steps or holding the ball for more than three seconds is not allowed. Goals must be shot from outside the arc, with only the goalkeeper allowed inside. Free throws and penalty throws are awarded for rule violations. Volleyball is today an international game. Volleyball is a sport played by two teams consisting of 12 players each on a playing court, divided by a net. The object of the game is to send the ball over the net in order to ground it on the opponent's court and to prevent the same effort by the opponent. The team has three hits or contacts to return the ball. One of the most crucial phases of volleyball is how players perform at the net. To be successful, teams must be able to control play at the net both offensively and defensively. Since this is the case, two of the most valued traits in a volleyball player are height and jumping ability. The study aimed to compare the anthropometric and physical fitness variables between Handball and Volleyball players. To achieve the purpose of this study (N=60) male university students were randomly selected as subjects from the Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu, India those who participated in Inter-collegiate tournaments, the selected subjects were divided into two equal groups., 30 Handball players and 30 Volleyball players. Their ages range from 18 to 25 years. The data were collected from Handball and Volleyball players on selected comparison of physical fitness and anthropometrical variables such as speed and flexibility were assessed by using standardized test items namely the 50-meter dash for Seconds and sit and reach Box for Centimeters respectively, they were statistically analyzed by using descriptive statistics and Independent "t" - test. In all cases, the 0.05 level of confidence was considered appropriate for this study. The result of the study shows that since the 't' - value no significant mean difference in speed parameters among handball and Volleyball inter-collegiate players. Volleyball players are faster than handball players in terms of speed. there was a significant mean difference in the flexibility parameter among handball and Volleyball inter-collegiate players. Volleyball players have More flexibility than Handball players.

Keywords: Handball, Volleyball, speed and flexibility.

THE ANATOMY OF ANKLE INJURIES: PREVENTION, TREATMENT AND REHABILITATION STRATEGIES

***R. Chidambaram, Santhosh & S. P. Aruneswaran.,** IInd B.P. Ed, Faculty of General and Adapted Physical Education & Yoga, RKMVERI, Coimbatore.

****Dr. S. Sakthivel,** Assistant Professor, Faculty of General and Adapted Physical Education & Yoga, RKMVERI, Coimbatore.

ABSTRACT

The ankle joint is a complex structure composed of bones, ligaments, tendons, and muscles that work together to provide stability and mobility. Ankle injuries, particularly sprains, are prevalent in sports and daily activities. Understanding the anatomy of the ankle is crucial for effective prevention, treatment, and rehabilitation. This paper examines the mechanisms of injury, risk factors, and evidence based approaches to managing ankle injuries. Ankle injuries are a significant concern due to their high prevalence and potential for chronic complications. A thorough understanding of ankle anatomy, combined with effective prevention, treatment, and rehabilitation strategies, can minimize the impact of these injuries. Future research should focus on innovative rehabilitation techniques and longterm outcomes of ankle injury management. Ankle injuries are among the most common musculoskeletal injuries, affecting athletes and the general population alike. This paper explores the anatomical structures involved in ankle injuries, including ligaments, tendons, and bones. It discusses preventive measures, evidence based treatment options, and rehabilitation strategies to optimize recovery and reduce the risk of reinjury. By integrating current research and clinical practices, this paper aims to provide a comprehensive guide for healthcare professionals and individuals seeking to understand and manage ankle injuries effectively.

Keywords: *Ankle anatomy, Ankle sprains, Ligament injuries, Injury prevention, Rehabilitation strategies, Physical therapy, RICE protocol, Proprioceptive training, Return to sport criteria.*

IMPACT OF HIGH INTENSITY EXERCISE ON LIPID PROFILES IN YOUNG COLLEGE MEN

***Dr. T. Thangamani.**, Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore.

ABSTRACT

Physical inactivity is a state of concern as it leads to major health problems like obesity, hypertension and various metabolic disorders. Exercise is recommended as a therapeutic lifestyle change as it leads to various health benefits. It is also known to bring about changes in lipid parameters. The important factors that have to be considered during an exercise session are its intensity and duration which has to be determined to produce major health benefits. Low intensity exercise done for longer periods uses fat as the substrate for energy whereas high intensity exercise uses carbohydrate rather than fat. This finding has led to the recommendation that traditional low to moderate intensity exercise is beneficial to produce changes in lipid parameters compared to high intensity exercise as observed by few studies. Recently high intensity intermittent exercise has been highlighted for the purpose of weight reduction and lowering atherogenic index. The advantages of high intensity exercise which has been stated is the shorter duration of activity, and as observed by Abby et al., the better long term adherence rate. To achieve the purpose of the study, thirty (N=30) subjects were selected from the Maruthi College of Physical Education, Sri Ramakrishna Mission Vidyalaya, Periyanaickenpalayam, Tamil Nadu. The participants, aged 21 to 25 years, were divided into two groups: Experimental Group-I, consisting of fifteen male subjects who high intensity training for 12 weeks (5 days per week, from 6:00 AM to 7:00 AM), and Control Group-II, also consisting of fifteen male subjects who continued with their regular routines without additional training. The selected variables for the study were Total cholesterol, Triglycerides, measured using blood sample tests. After completing twelve weeks of training, post-test data were collected, and both pre-test and post-test scores were analyzed using the dependent t-test with the level of confidence set at 0.05. The results revealed that the experimental group showed a significant changes total cholesterol, triglycerides in training program. However, no significant changes were observed in the control group for the selected variables.

Keywords: High Intensity Training, Total cholesterol, Triglycerides.

EFFECT OF PNF STRETCHING ON SELECTED MOTOR FITNESS COMPONENTS AMONG INTER - COLLEGIATE LEVEL FIELD HOCKEY PLAYERS

***Dr. V. Saminathan.,** Assistant Professor, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.

****S. Nagaraj.,** M.P.Ed, Sri Ramakrishna Mission Vidyalaya Maruthi College of Physical Education, Coimbatore, Tamil Nadu.

ABSTRACT

Proprioceptive neuromuscular facilitation is a method of flexibility training that can reduce hyper tonus, allowing muscles to relax and lengthen. PNF stands for proprioceptive neuromuscular facilitation and it is generally considered as one the most effective forms of stretching available. PNF stretching, or proprioceptive neuromuscular facilitation stretching, are stretching techniques commonly used in clinical environments to enhance both active and passive range of motion with the ultimate goal being to optimize motor performance and rehabilitation. Generally, an active PNF stretch involves a shortening contraction of the opposing muscle to place the target muscle on stretch, this is followed by an isometric contraction of the target muscle. PNF can be used to supplement daily stretching and is employed to make quick gains in range of motion to help athletes improve performance (Marek, Cramer, Fincher, Massey et al., 2005). The purpose of the study was to investigate effect of PNF stretching on selected motor fitness components among inter-collegiate level field hockey players. In this study, 30 students from SRMV Maruthi College of Physical Education, Coimbatore were selected as the subjects for this study. They were divided into two groups of fifteen each and assigned as control and experimental group. Experimental treatment was applied only to the experimental group for a period of six weeks. The control group was not given experimental treatment. The PNF stretching was given thrice a week. After six weeks the final performance of both the control and experimental groups were taken. The significant differences between the means of experimental group and control group for the pre-test and post-test scores were determined by ANCOVA. The level of significance was fixed at 0.05 level of confidence for the degree of freedom 1 and 27. It was observed that the experimental group showed significant improvement on selected motor fitness components.

Keywords: PNF stretching, motor fitness components.

COMPARISON OF CARDIO-RESPIRATORY ENDURANCE BETWEEN INTER-UNIVERSITY FOOTBALL AND FIELD HOCKEY PLAYERS

*Mr. J. Thanveer Nishath, Mr. P. Ajaykannan and Mr. M. Hem Ajay., IInd B.P. Ed,
Faculty of General and Adapted Physical Education & Yoga, RKMVERI, Coimbatore.

ABSTRACT

Field hockey is a team sport structured in standard hockey format, in which each team plays with 11 players in total, made up of 10 field players and a goalkeeper. Teams must move a hockey ball around a pitch by hitting it with a hockey stick toward the rival team's shooting circle and then into the goal. The match is won by the team that scores the most goals. Matches are played on grass, watered turf, artificial turf, or indoor boarded surface. Through aerobic training, a hockey player can reduce body fat. Football is a family of team sports that involve, to varying degrees, kicking a ball to score a goal. Unqualified, the word football normally means the form of football that is the most popular where the word is used. Sports commonly called football include association football (known as soccer in Australia, Canada, South Africa, the United States, and sometimes in Ireland and New Zealand). This study aimed to find the comparison of cardio-respiratory endurance between inter-university football and field hockey players. Fifteen men inter-university football and field hockey players in each game were selected as a subject. Their age ranged from 17 to 25 years. The test was taken on cardio-respiratory endurance and compared between those two groups. The result shows that there was no big difference in cardio-respiratory endurance between inter-university football and field hockey players.

Keywords: *Field hockey, Football, Cardio-respiratory endurance.*

INVESTIGATION OF THE CHANGES ON STRESS AND SELF - CONFIDENCE DUE TO AEROBIC EXERCISES AND YOGIC PRACTICES ON AMONG MALE KABADDI PLAYERS

***Mr. R. Sudhakar.,** Research Scholar, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.

****Dr. M. Krishnamoorthi.,** Director of Physical Education, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.

ABSTRACT

Consuming oxygen helps prevent cardiovascular diseases such as high blood pressure, type 2 diabetes, high cholesterol, inflammation of the joints, and stroke. Running, walking, and weight training are examples of high-impact exercises that help prevent osteoporosis. Oxygen-consuming activities will aid to minimize diseases regardless of how one feels about them. Vigorous or dynamic exercises also strengthen the impervious framework. It burns calories; in total, it is the main exercise that contributes to smoldering sway to fat quotients. The purpose of present study was to find out the investigation of the changes on stress and self-confidence due to aerobic exercises and yogic practices on among male kabaddi players. To achieve this purpose, forty-five kabaddi players, studying in various departments from Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India, in the age group of 17 - 25 years were selected as subjects. The selected forty-five subjects were randomly divided into three groups of fifteen each, out of which group - I (n = 15) underwent aerobic exercise (continuous running) for three days (alternative days) per week, group - II (n = 15) underwent yogic practice for five days per week (Monday to Saturday) for twelve weeks and group – III (n = 15) remained as control. Prior to and after the training period the subjects were tested for, stress and self-confidence. stress was assessed by using evenly and Giordano stress scale and self-confidence assessed by using Rekha Agnihotry self-confidence Questionnaire. The statistical tool was used for the present study is Analysis of covariance (ANCOVA). If obtained 'F' ratio is significant, Scheffe's test used as a post hoc test to find out the differences among the groups. The result of the study was a significant altered on stress and self-confidence after twelve weeks of aerobic exercises and yogic practices. However, the different was favour of experimental groups. There was significant difference was occurred between aerobic exercises and yogic practices group after twelve weeks of aerobic exercises and yogic practices.

Key Words: *Aerobic Exercises, Yogic Practices, Kabaddi, stress and self-confidence*

INVESTIGATION OF THE CHANGES ON STRESS AND ANXIETY OF CIRCUIT TRAINING AND YOGIC PRACTICES AMONG MALE CRICKET PLAYERS

***Mr. S. Shanmuga Priyan.**, Assistant Physical Director, Department of Physical Education, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.

****Dr. M. Krishnamoorthi.**, Physical Director, Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India.

ABSTRACT

Similar to high-intensity interval training, circuit training is a type of body conditioning that includes resistance training, endurance training, high-intensity aerobics, and exercises done in a circuit. It focuses on increasing muscular endurance and strength. A "circuit" of exercises is a single execution of every exercise in the program. After finishing one circuit, the initial exercise is repeated for the subsequent circuit. In circuit training, the intervals between exercises are often brief and frequently involve a quick transition to the subsequent exercise. In 1953, R.E. Morgan and G.T. Anderson created the curriculum at the University of Leeds in England. (Len and Kraviz, 1996). The purpose of present study was to find out the impact of circuit training and yogic practices on stress and anxiety among male cricket players. To achieve this purpose, forty-five cricket players, studying in various departments from Gobi Arts and Science College, Gobichettipalayam, Erode, Tamil Nadu, India., in the age group of 17 - 25 years were selected as subjects. The selected forty-five subjects were randomly divided into three groups of fifteen each, out of which group - I (n = 15) underwent circuit training for three days (alternative days) per week, group - II (n = 15) underwent yogic practices for five days per week (Monday to Friday) for twelve weeks and group – III (n = 15) remained as control. Prior to and after the training period the subjects were tested for, stress and anxiety. stress was assessed by using Evenly and Giordano stress scale and anxiety assessed by using Taylor's Manifest Anxiety Scale. The statistical tool was used for the present study is Analysis of covariance (ANCOVA). If obtained 'F' ratio is significant, Scheffe's test used as a post hoc test to find out the differences among the groups. The result of the study was a significant altered on stress and anxiety after twelve weeks of circuit training and yogic practices. However, the different was favour of experimental groups. There was significant difference was occurred between circuit training and yogic practices group after twelve weeks of circuit training and yogic practices.

Key Words: *Circuit training, Yogic Practices, Cricket, Stress and Anxiety.*

IMPACT OF SOCCER DRILLS TRAINING ON DRIBBLING AND SHOOTING OF SCHOOL LEVEL FOOTBALL PLAYERS

***R. Prakash & K. Sanjai.**, M.P.Ed., Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore.

****Dr. M. Ramajayam.**, Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore.

ABSTRACT

Soccer is one of the most widely played sports globally, requiring a combination of technical, tactical, and physical skills for success. Among these, dribbling and shooting are two fundamental abilities that significantly influence a player's performance on the field. Dribbling enables players to evade defenders, maintain possession, and create scoring opportunities, while shooting determines the ability to convert chances into goals efficiently. For school-level football players, mastering these skills is essential for their growth and competitiveness in the sport. One of the most effective ways to enhance dribbling and shooting skills is through structured soccer drills training. Drills are designed to improve specific aspects of the game through repetition, technique refinement, and controlled practice scenarios. Dribbling drills focus on ball control, agility, coordination, and quick decision-making under pressure. Meanwhile, shooting drills enhance accuracy, power, timing, and composure in front of goal. Regular exposure to these drills helps players develop muscle memory, improve reaction time, and boost confidence during actual match situations. To achieve the purpose of the study, thirty (N=30) subjects were selected from the My life sports academy, periyanaickenpalayam, Tamilnadu. The participants, aged 14 to 16 years, were divided into two groups: Experimental Group-I, consisting of fifteen male subjects who underwent basic conditioning workouts with soccer drills for 8 weeks (5 days per week, from 4:00 PM to 5:00 PM), and Control Group-II, also consisting of fifteen male subjects who continued with their regular routines without additional training. The selected variables for the study were dribbling, measured using mor-christian soccer test, and shooting, measured using mor-christian soccer test. After completing eight weeks of training, post-test data were collected, and both pre-test and post-test scores were analyzed using the dependent t-test to determine if there had been a significant. The level of confidence set at 0.05. The results revealed that the experimental group showed a significant improvement in dribbling and shooting, attributed to the soccer drills training program. However, no significant changes were observed in the control group for the selected variables.

Keywords: Soccer Drills Training, dribbling and shooting.

COMPARATIVE IMPACT OF SEPARATE AND INTEGRATED STRENGTH AND YOGA TRAINING ON PHYSICAL AND PHYSIOLOGICAL METRICS OF COLLEGE LEVEL CRICKET PLAYERS

***S. Lakshmanan**, Research Scholar, Navarasam Arts & Science College for Women, Arachalur, Erode, Tamil Nadu, India.

****Dr. K. Kavitha**, Director of Physical Education, Navarasam Arts & Science College for Women, Arachalur, Erode, Tamil Nadu, India.

ABSTRACT

Cricket is unique as a sport with three different formats of the game at the very highest level. Test cricket, One-Day International cricket and Twenty20 International cricket are the three and how the three formats work is explained right here. There are three formats of cricket played at the international level – Test matches, One-Day Internationals and Twenty20 Internationals. These matches are played under the rules and regulations approved by the International Cricket Council, which also provides match officials for them. Sports significantly contribute to enhancing physical health and mental well-being. In recent times, the prominence of sports has grown nationally, with educational institutions increasingly incorporating sports programs for students. This research investigates the effects of separate and integrated strength and yoga training on the physical and physiological performance of college-level cricket players. The study involved 60 male cricket players between 18 and 25 years of age, randomly assigned to four groups: Experimental Group I (strength training), Experimental Group II (yoga training), Experimental Group III (combined strength and yoga training), and a Control Group. A preliminary session was held to inform participants about the study's objectives and clarify the required commitment to ensure active and informed participation. The training intervention lasted for 8 weeks. Experimental Group I performed resistance training in conjunction with cricket-specific drills, Experimental Group II participated in yoga sessions integrated with cricket-specific exercises, and Experimental Group III combined both resistance and yoga training with cricket-specific exercises. The Control Group engaged solely in cricket-specific exercises without additional interventions. Key fitness parameters, including shoulder muscular strength as a physical fitness metric and resting heart rate as a physiological measure, were evaluated before and after the training period.

Keywords: *Physical fitness, resistance training, yoga practice, cricket players.*

IMPACT OF PLYOMETRIC TRAINING ON OXIDATIVE AND NON-OXIDATIVE POWER AMONG WOMEN STUDENTS

***Y. Deenadhayan.,** Research Scholar, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu.

****E. Anburaj.,** Research Scholar, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu.

*****Dr. S. Velkumar.,** Assistant Professor, Department of Physical Education, Tamil Nadu Physical Education and Sports University, Chennai, Tamil Nadu.

ABSTRACT

Plyometric training is an effective mode of training as it enhances motor learning and neuromuscular efficiency by promoting the excitability, sensitivity, and reactivity of the neuromuscular system to increase the rate of force production (power), motor-unit recruitment, firing frequency (rate coding), and synchronization. Muscles produce the necessary force to change the direction of an object's centre of mass. All movement patterns that occur during functional activities involve a series of repetitive stretch shortening cycles. The neuromuscular system must react quickly and efficiently following an eccentric muscle action to produce a concentric contraction and impart the necessary force (or acceleration) in the appropriate direction. The aim of the research is to assess the improvement in Oxidative and Non-Oxidative power among women students on administering a 12 weeks plyometric training. A total of twenty sports science women students were randomly selected from Tamil Nadu Physical Education and Sports University, Chennai, they were divided into two equal (n=10) groups. To achieve the purpose of this study women students was selected based on the inclusion and exclusion criteria, and they were divided into Experimental group and Control group, Experimental group were engaged in plyometric training for 12 weeks with a frequency of three sessions per week. The Oxidative power was measured using Monark Cycle Ergometer, the Non-Oxidative power assessed by Vertical jump test. The data were collected before and after the training were analyzed by using ANCOVA and the level of significant was fixed at 0.05 level. The results of the study clearly indicated that the Oxidative capacity and Non-Oxidative power significantly improved following 12 weeks of plyometric training. It was concluded that plyometric training was produced greater impact on Oxidative capacity and and Oxidative power of women student.

Key Words: *Plyometric training, Oxidative power, Non-Oxidative Power.*

IMPACT OF SPORTS ELECTIVE PARTICIPATION ON SOCIAL WELL-BEING IN STUDENTS

***Dr. P. Nandhini.**, Assistant Director, Department of Physical Education, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.

ABSTRACT

Social well-being is a critical aspect of holistic student development, encompassing social connectedness, interpersonal relationships, and community engagement. Sports electives in higher education provide a structured environment where students interact, collaborate, and develop essential social skills. While numerous studies have explored the physical and mental health benefits of sports, the social benefits—such as teamwork, inclusivity, and conflict resolution—require further examination. This study investigates the role of sports electives in fostering social well-being among undergraduate students. Despite the acknowledged benefits of physical activity, research on the social outcomes of sports participation in higher education remains limited. There is a need to examine how structured sports electives contribute to social cohesion, student integration, and peer relationships. This study examines the impact of sports elective participation on the social well-being of undergraduate students at Avinashilingam Institute for Home Science and Higher Education for Women. The research focuses on a sample of 425 final-year students who consistently engaged in sports electives over 2.5 years (five semesters). Using a mixed-methods approach that includes surveys, interviews, and observational studies, the study assesses how structured physical activity enhances social connections, teamwork, communication skills, and overall social inclusion. The findings indicate that students who participated in sports electives experienced higher levels of peer bonding, improved conflict resolution skills, and increased participation in campus social activities. The study underscores the importance of integrating sports electives into academic curricula to foster social well-being, enhance interpersonal skills, and promote inclusivity among students. Future research should explore the long-term effects of sports participation on social networks and professional relationships.

Key Words: *holistic student development, encompassing social connectedness, interpersonal relationships, and community engagement.*

EFFECT OF PILATES EXERCISES ON SELECTED PHYSICAL FITNESS VARIABLES AMONG COLLEGE LEVEL VOLLEYBALL PLAYERS

***C. Hanny Lindha.**, Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.

****Dr. V. Vallimurugan.**, Assistant Professor, Department of Physical Education, Bharathiar University, Coimbatore.

ABSTRACT

Two teams of twelve players each compete in the sport of volleyball on a court that is separated by a net. Sending the ball over the net to land it on the other team's court and stopping them from doing the same is the goal. The team has three hits or contacts to return the ball. To play volleyball, one must be good at vertical jump, known as explosive power. A volleyball match can last about 90 minutes, with 250-300 actions dominated by the explosive type of strength of leg muscles. Strength training for volleyball is not about building big muscles but to develop physical attributes necessary to improve a player's performance. Strength training should not be developed independently of other abilities such as agility, quickness, and endurance. A great volleyball player is known for their quick, short, and explosive bursts that keep the ball in play and control the flow of the game. Quickness in volleyball involves not only side to side and front to back but also from up to down. In the sport of volleyball, two teams of twelve players each compete on a court that is separated by a net. The goal is to get the ball over the net and land it on the other team's court while stopping them from making the same move. Teams must be able to control play at the net both offensively and defensively. The effect of pilates workouts on specific physical fitness metrics of female volleyball players was examined in this study. Thirty female volleyball players were chosen from a college affiliated with Bharathiar University in order to fulfill the study's objectives. The participants (n=15) were divided into two equal groups at random. Group II served as the control group (CG), whereas Group I engaged in pilates exercises (PTG). For twelve weeks, the experimental group received the pilates exercises three days a week (Monday, Wednesday, and Friday). Other than their regular tasks, the control group received no instruction of any kind. To determine whether there had been any significant improvement at the 0.05 level of confidence, the data gathered from the subjects was statistically examined using the "t" test. According to the current study's findings, women volleyball players' physical fitness factors were considerably enhanced by pilates workouts.

Keyword: *Pilates, Volleyball, Physical fitness variables, Women Athletes.*

TRANSITION TO ATTACK OUTCOMES ON PERFORMANCE OF SOCCER PLAYERS

***J. Robin Raja.**, Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.

****C. Susindran.**, Research Scholar, Department of Physical Education, Bharathiar University, Coimbatore.

ABSTRACT

Sports training is a multifaceted process aimed at improving athletic performance. It encompasses a variety of methods and principles designed to enhance physical, technical, tactical, and psychological skills. Sports training is a comprehensive and scientific process that plays a crucial role in athletic success. By understanding the key components, principles, and methods of sports training, athletes and coaches can develop effective programs to maximize performance and achieve their goals. Football, also known as soccer in many parts of the world, is a globally beloved sport played between two teams of eleven players with a spherical ball. The objective of the game is to score goals by kicking or heading the ball into the opposing team's net. Football is more than just a sport; it's a global phenomenon that unites people and cultures. It evokes strong emotions, passion, and rivalries. Football has a significant social and economic impact, influencing communities and even nations. Football is a complex and dynamic sport that requires a combination of physical skills, technical abilities, tactical awareness, and mental strength. It's a game of strategy, teamwork, and individual brilliance. Whether you're a player or a fan, football offers an exciting and engaging experience. The purpose of this study was to find out the "Transition to Attack Outcomes on Performance of Soccer Players". Subjects for the study have taken from Bharathiar University, Coimbatore, Tamil Nadu. The 30 subjects were randomly taken on the age group between 18 to 23 years. The training programme formulated for the period of 4 weeks. They were further divided into two groups as experimental and control group as randomly after the preliminary tests taken for the study. All the subjects group I experimental group (n=15) performed the transition of attack group II was (n=15) acted as a control group did not underwent regular training program. The Kicking for distance and Dribbling chosen as a criteria variables and it was Kicking tested by Warner soccer test the performance recorded as distance, Dribbling tested by Warner soccer test the performance recorded as seconds. The study was formulated as pre and posttest random group design, in which thirty students were divided into two equal groups.

Key words: *Transition to attack, Kicking for distance and Dribbling.*

EXAMINING PHYSIOLOGICAL CHARACTERISTICS IN ATHLETES WITH DIFFERENT LEVELS OF HEARING IMPAIRMENT

***K. Maruthamuthu.**, Research Scholar, Faculty of General & Adapted Physical Education and Yoga, RKMVERI, Coimbatore.

****Dr. R. Giridharan.**, Associate Professor and Head, Faculty of General & Adapted Physical Education and Yoga, RKMVERI, Coimbatore.

ABSTRACT

Hearing impairment is a prevalent sensory disability that influences various physiological characteristics, particularly in athletes. The present study examines the physiological differences between state-level Deaf and Hard of Hearing (HOH) male athletes in Tamil Nadu. The research aims to assess variations in systolic blood pressure (SBP), diastolic blood pressure (DBP), and pulse rate (PR) between the two groups to understand the potential impact of hearing impairment on cardiovascular health. A purposive sampling technique was employed to select 96 male athletes with hearing impairment, divided equally into two groups of 48 athletes categorized as Deaf or HOH. A static group comparative research design was used to analyze the selected physiological variables. Data collection included SBP and DBP measurements using a sphygmomanometer and PR assessment using a pulse oximeter. The normality of the data was checked using the Shapiro-Wilk test, confirming normal distribution. Given the use of non-probability sampling, a non-parametric statistical tool, the Mann-Whitney U test, was employed to determine the significance of differences between the two groups. Results indicated that Deaf athletes exhibited significantly higher SBP, DBP, and PR values than HOH athletes, suggesting potential differences in autonomic regulation and cardiovascular responses. These findings highlight the need for tailored training and health interventions to address cardiovascular differences in athletes with hearing impairment. The study contributes to the understanding of physiological adaptations in Deaf and HOH athletes, promoting more inclusive sports training and healthcare strategies.

Keywords: Deaf, Hard of hearing and Physiology.

REVOLUTIONIZING CRICKET OFFICIATING: THE IMPACT OF TECHNOLOGY

*Iraianbu., M. P. Ed, Faculty of General & Adapted Physical Education and Yoga RKMVERI, Coimbatore.

**Dr. M. Ramajayam., Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, RKMVERI, Coimbatore.

ABSTRACT

Cricket has changed a lot since the first official match was played in 1877. Technology has played a prime role in the growth of the sport, with Ultra-edge, ball-tracking, and the Duckworth Lewis method changing the game immensely. Technology has played a key role in the development and evolution of cricket. It has helped to enhance player performance, reduce injury risk, and increase fan engagement. Some of the technologies used in cricket include television replays, ball-tracking, ultra-edge, microphones, infra-red imaging, smart bails, drones, graphics, animations, power analysis, and speed gun. These technologies assist the umpires in making accurate decisions, as well as providing viewers with more insights and perspectives. Technologies have made the game of cricket more entertaining and have also made it easier for the coaches to analyse player and team performances to come up with better strategies. Cricket has witnessed a significant transformation with the integration of advanced technology in officiating. Traditional umpiring, once solely reliant on human judgment, has evolved with innovations like the Decision Review System (DRS), Hawk-Eye, and Ultra Edge, ensuring greater accuracy. The use of ball-tracking systems has minimized LBW errors, while Snickometer and Hot Spot have enhanced edge detection. AI-driven no-ball tracking and smart stumps have further reduced human errors. These advancements have not only improved decision-making but also increased fairness in the game. However, debates continue regarding the balance between technology and the human element in officiating. The role of technology in cricket officiating is not just about accuracy but also about enhancing viewer experience and maintaining the spirit of the game. As technology continues to evolve, its impact on cricket will only grow, shaping the future of umpiring.

Keywords: *Technology, Revolution, Officiating and Cricket.*



Published by
**International Journal of
Innovative Research in Science, Engineering and Technology**



ISBN Number : 978-81-984557-1-0