











Manav Rachna International Institute of Research & Stuides
Delhi NCR (India)



# 3<sup>rd</sup> Conference on BRICS Exercise & Sports Science

26-29<sup>th</sup> February 2024
REPORT

















Council of Exercise & Sports Science https://bricscess.com/2024-conference/

# **Preamble**

About BRICSCESS: According to the World Economic Forum, the BRICS economies are the most competitive among all other countries in the coming years and are distinguished by their significant regional and global influence. The health and wellness of people are at the top of the agenda of these governments, which is to connect fast economic growth and a better quality of life. There has been a phenomenal and rapid development in exercise and sports science. The BRICS Council of Exercise and Sports Science (BRICSCESS) is founded to recognise the need to address the specific concerns of BRICS concerning the health and wellness of the people in the regions. Therefore, the BRICSCESS aims to promote communication, interaction and cooperation among all academies, research institutes, universities, researchers and students in exercise-related exercise and sports science in BRICS educational, scientific and research institutions for promoting health and wellness in these countries. In particular, the BRICSCESS seeks to promote and facilitate communication among young researchers, future leaders and students in BRICS. The founder of BRICSCESS are Prof. Hans de Ridder (President) from South Africa, Prof. Gulshan Khanna (Vice President) from India, Prof. Ming-kai Chin from China, Prof. Ricardo Uvinha from Brazil and Prof. Yulia Gushchina from Russia.

About BRICSCESS Conference: The BRICSCESS conference emerges as the quintessential platform for synergising intellectual discourse with on-the-ground industry practices. Global confluence of scientific minds, scholars, and industry positions the conclave to serve as the epicentre for catalysing transformative conversations around sports in India. As the corridors of BRICSCESS echo with cutting-edge research and innovative solutions in sports and exercise science, the conclave acts as the pragmatic counterpart, channelising these intellectual treasures into actionable strategies for the sports industry. It was formed at the 7th Asia Pacific Conference on Exercise and Sports Science (APCESS 2015) at Manav Rachna International University, India 17 Oct 2015. Dr. Ming-kai Chin is elected as the Founding President and Dr. Hans de Ridder was elected as the Vice President for Africa and the Secretary General/Treasurer with the HQ stationed at the North-West University in Potchefstroom, South Africa.

**About BRICSCESS Conference 2024:** The BRICSCESS 2024 Conference, themed "Advances in Holistic Health and Sport for Children and Youth: Innovation, Integration, and Sustainability through Science," marked a significant milestone in the landscape of health and sports sciences. The conference comprised 5 keynote speakers, 17 speakers, 9 lead leaders, 112 paper presenters and 57 poster presenters. There were 72 endorsements from different organisations and institutions around the Globe. This academic spectacle convened over four days, bringing together over 500 delegates and volunteers from around 20 countries.

Day 0: Pre Conference Workshops - Before the official commencement of the conference, four pre-conference workshops were conducted, empowering delegates with expertise in nutrition, sports injury management, sports biomechanics, and research methodologies. These workshops, led by esteemed resource persons, set the stage for enriching discussions and collaborations.

Day 1: Confluence of Wisdom - The inaugural day witnessed an impressive turnout, featuring keynote addresses, traditional ceremonies, distinguished speakers, and book releases. Keynote addresses by Prof. Stephen Kopecky and Prof. G.L Khanna, among others, set an intellectually invigorating tone for the day. The inauguration reached a high point with Words of Wisdom by the Hon'ble Chief Guest, Ms. Sujata Chaturvedi, Secretary Sports, Government of India who joined in an online manner. The day also saw engaging sessions by international experts and thought-provoking panel discussions, laying the groundwork for insightful exchanges.

Day 2: Symphony of Insights - The scientific momentum continued into the second day with keynote addresses, expert talks, and riveting panel discussions. Prof. G.L Khanna's address on holistic development in children and youth set the stage for further discussions on promoting fitness and psychological well-being. The day also featured workshops and cultural programs, enhancing cognitive engagement and fostering cultural exchange.

Day 3: Harmonizing Perspectives - On the penultimate day, keynote addresses by Prof. Mingkai Chin and Prof. Uri Schaefer, alongside talks by esteemed experts, explored innovative practices in health and sports. The day also featured a tour of university facilities, allowing guests to witness firsthand the infrastructure supporting research and education in health and sports sciences.

Cultural Evening and Gala Dinner - The conference concluded with a vibrant cultural evening and gala dinner, showcasing the diverse traditions of India and BRICS nations. From spirited folk dances to captivating fashion walks, the evening celebrated the rich cultural tapestry of participating countries, leaving the audience enchanted and invigorated.

Day 4: Envisioning Paths Forward - The concluding day featured keynote addresses and invited talks, offering valuable perspectives on adapted judo for children with autism spectrum disorder and combating childhood obesity. Throughout the sessions, delegates engaged in thought-provoking discussions and shared best practices, highlighting the conference's success in fostering collaboration and innovation in healthcare and wellness.

The BRICSCESS 2024 Conference served as a melting pot of ideas, perspectives, and experiences, transcending geographical and intellectual boundaries. With its focus on collaboration, innovation, and inclusive growth, the conference has laid a robust foundation for advancing health and sports sciences globally. As we reflect on the past four days, we envision a future marked by continued collaboration, innovation, and collective advancement for the betterment of society.

# BRICSCESS 2024 Pre-Conference Workshops Inaugural Ceremony



The Inaugural ceremony of pre-conference workshop at BRICSCESS was successfully inaugurated at Manav Rachna International Institute of Research and Studies (MRIIRS) on 25th February 2024, marking a significant event in the field of sports science and exercise. The inauguration ceremony was graced by the presence of esteemed dignitaries, showcasing

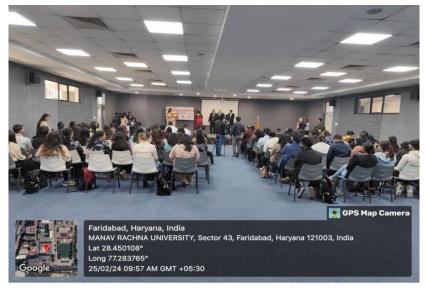
the importance and global reach of the conference.

Dr. G.L. Khanna, the Pro Vice Chancellor of MRIIRS and a founding member as well as Vice President of BRICSCESS, delivered the welcome address. His involvement highlights the strong collaboration between MRIIRS and BRICSCESS, emphasizing the commitment to advancing sports science and exercise research.

Words of wisdom were shared by Prof. Dr. Ming-Kai Chin, the founder and immediate past president of BRICSCESS, whose visionary leadership has been instrumental in the establishment and growth of the organization. Prof. J. Hans de Ridder, the current president of BRICSCESS, also shared his insights, further enriching the discussions with his extensive expertise in the field. The international dimension of the conference was underscored by contributions from Prof. Oleksandr

from Malaysia and Prof. Dhananjay Shaw from the Indira Gandhi Institute of Physical Education and Sports Sciences. Their participation not only broadened the geographical scope but also introduced a diverse range of perspectives and academic insights into the conference.

The inauguration set a positive tone for the subsequent workshops and sessions, fostering an environment of learning and collaboration among participants from various parts of the world. The engagement of such high-profile figures in the field of sports science and exercise at the BRICSCESS pre-conference workshop at MRIIRS illustrates the events and significance as a platform for discussing the latest scientific advancements, sharing knowledge, and networking among professionals and academics in the sports science community.



**Title:** Injury Management in High-Performance Sports: **Insights from BRICSCESS 2024 Pre-Conference Workshop** 

The Pre-Conference Workshop on 'Injury Management in High Performance Sports' held on 25th February 2024 was a huge success. It was co-ordinated and moderated by Dr. Jasmine Kaur Chawla. The workshop was conducted by one of the eminent Sports Medicine Specialist of the country, Dr. Dobson Dominic from Chennai. He is a Sports Medicine Specialist, Professor, and Head of Department of Sports Medicine, Sports Science – Saveetha Medical College - SIMATS, Chennai. Founding Vice President of ISSEM (Indian Society of Sports). Workshop focussed on two key thrust areas:

# Functional Movement Systems (FMS) and Blood Flow Restriction Therapy.

Dr. Dominic delved into the significance of Functional Movement Systems (FMS) in injury management within high-performance sports. FMS is a comprehensive approach to assessing and improving movement patterns to enhance performance and prevent injuries. Attendees will learn

practical techniques and protocols for utilizing FMS in sports medicine.



Blood Flow Restriction Training (BFRT): The workshop also featured an in-depth exploration of Blood Flow Restriction Training (BFRT) techniques. BFRT is a cutting-edge method used to enhance muscle strength and rehabilitation outcomes with reduced loads. Dr. Dominic will share insights into the application of BFRT in the context of sports injury management, including its benefits, safety considerations, and integration into training programs.\

41 attendees from different streams like Sports medicine practitioners, physiotherapists, athletic trainers, and other healthcare professionals working in high-performance sports settings participated in workshop.

1<sup>st</sup> day(25<sup>th</sup> February'24) was focussed on advancements and utility of Functional Movement Systems (FMS) in injury management. 2<sup>nd</sup> day (26<sup>th</sup> February'24) had a deeper discussion on BFRT technique and its clinical application

16 hour – 1 academic credit workshop also included Hands-On training by the resource person which actively engaged the participants with full enthusiasm and gained significant scientific knowledge through live demonstration. The second day was concluded with a exam and felicitation ceremony.



#### The outcomes were profound:

1. Enhanced Understanding of FMS: Participants gained a deeper understanding of Functional Movement Systems (FMS) and its role in injury prevention and performance enhancement. Dr. Dominic elucidated the principles of FMS assessment and emphasized

- its utility in identifying movement dysfunctions and asymmetries that may predispose athletes to injuries.
- 2. Practical Application of FMS: Through practical demonstrations and case studies, attendees learned how to implement FMS protocols in clinical and training settings. Dr. Dominic highlighted the importance of individualized corrective exercises and movement patterns to address specific limitations identified through FMS assessment.
- 3. Insights into BFRT Techniques: The workshop provided valuable insights into Blood Flow Restriction Training (BFRT) and its potential benefits in rehabilitation and performance training. Dr. Dominic discussed the physiological mechanisms underlying BFRT and demonstrated safe and effective techniques for implementing BFRT protocols.
- 4. Integration into Sports Medicine Practice: Participants gained practical strategies for integrating FMS and BFRT into their sports medicine practice. Dr. Dominic emphasized the importance of interdisciplinary collaboration among sports medicine practitioners, coaches, and trainers to optimize athlete care and performance outcomes.
- 5. Interactive Learning Environment: The workshop fostered an interactive learning environment where participants had the opportunity to engage with Dr. Dominic, ask questions, and share their experiences and challenges in managing injuries in high-performance sports.

In conclusion, the workshop on Injury Management in High-Performance Sports led by Dr. Dobson Dominic provided attendees with valuable insights, practical strategies, and actionable recommendations for improving athlete health, performance, and overall well-being. The knowledge and skills acquired during the workshop are expected to have a profound impact on participants' ability to effectively manage injuries and optimize performance in high-performance sports settings. Attendees are encouraged to apply the principles and techniques learned to enhance athlete care, prevent injuries, and maximize athletic potential.



# Title: Sports Biomechanics Toolbox: EMG, Motion and Force Analysis

The Pre conference workshop on 'Sports Biomechanics Toolbox: EMG, Motion and Force Analysis' was well appreciated. The 2 day workshop held on 25<sup>th</sup> and 26<sup>th</sup> February'24 was focussed on significance of biomechanical tools in understanding athletic movements, muscle engagement, and the forces involved. The live demonstrations facilitated a deeper



comprehension of these complex concepts, enabling participants to apply biomechanical research to real-world sports scenarios effectively. The resource person for this workshop was a renowned bio mechanist Dr. Rajini Palaniyappan, who is an is an Associate Professor TNPE Sports University Chennai. Also he is the Director of Excellence in Biomechanics cum High Performance Centre of Sports.

Dr. Rajinikumar Palaniyappan, provided attendees with a comprehensive understanding of essential tools and techniques in sports biomechanics analysis. Over the course of two days, participants delved into the utilization of electromyography (EMG), motion analysis, and force analysis to enhance performance and prevent injuries in athletes. 29 attendes from different spectra of Sports sciences (Sports medicine specialist, physiotherapists and athletic trainers) participated in this enriched workshop.

The outcomes of the workshop were:

1. Enhanced Understanding of Biomechanical Analysis: Participants gained a deeper understanding of the principles and methodologies involved in biomechanical analysis, particularly focusing on electromyography (EMG), motion analysis, and force analysis. Dr. Palaniyappan provided comprehensive insights into the theoretical foundations and

practical applications of these techniques.

2. Proficiency in Data Collection and Analysis: Through hands-on practical sessions, attendees developed proficiency in collecting biomechanical data using EMG sensors, motion capture systems, and force platforms. They learned how to set up equipment, calibrate sensors, and collect accurate data for subsequent analysis.

3. Interpretation of Biomechanical Data: Participants learned how to interpret biomechanical data obtained from EMG, motion analysis, and force analysis. Dr. Palaniyappan guided attendees in understanding key biomechanical variables, such as muscle activation patterns, joint kinematics, kinetics, and forces acting on the body during movement.

- 4. Application in Sports Performance and Injury Prevention: The workshop emphasized the practical application of biomechanical analysis in optimizing sports performance and preventing injuries. Attendees gained insights into how biomechanical data can be used to design effective training programs, identify movement inefficiencies, and implement corrective strategies to mitigate injury risks.
- 5. Integration with Research and Practice: Participants explored the integration of biomechanical analysis techniques into research studies and clinical practice. They learned how to conduct meaningful research projects, publish findings, and apply biomechanical principles in various professional settings, including sports science laboratories, rehabilitation clinics, and athletic training facilities.

Overall, the Sports Biomechanics Toolbox workshop led by Dr. Rajinikumar Palaniyappan equipped participants with valuable knowledge, practical skills, and insights into the application of EMG, motion analysis, and force analysis in sports biomechanics. Attendees left the workshop empowered to leverage biomechanical tools and techniques to enhance athletic performance, optimize training strategies, and contribute to advancements in sports science and rehabilitation research.



# Title: Enhancing Research Writing Skills: Insights from BRICSCESS 2024 Pre-Conference Workshop



The Pre-Conference Workshop on 'Writing Good Articles for Publications' held on 25th February 2024 was a resounding success. Coordinated by Dr. Divya Sanghi and moderated by Dr. Mahak Sharma, the workshop featured esteemed resource persons: Professor (Dr.) J. Hans de Ridder from North-West University, Potchefstroom, South Africa, and Professor (Dr.) Maya Van Gent from the University of Fort Hare, South Africa.

The workshop aimed to equip participants with the skills and knowledge necessary to navigate the challenges of publishing research papers. The event commenced with distinguished dignitaries emphasizing the global importance of the conference. Dr. G.L. Khanna, MRIIRS's Pro Vice Chancellor, and Prof. Dr. Ming-Kai Chin, BRICSCESS's founder, highlighted the collaboration's commitment to advancing research. Prof. J. Hans de Ridder, BRICSCESS's president, and other experts enriched the discussions with their insights.

The workshop attracted over 30 students, providing an ideal platform for delving into effective research writing techniques. Professors J. Hans de Ridder and Maya Van Gent shared their expertise, focusing on crafting engaging introductions, employing reliable methodologies, and presenting results transparently and accurately. The emphasis on proper referencing practices underscored the importance of academic integrity.

The outcomes were profound:

- 1. Deeper Understanding: Participants gained insights into effective research writing techniques, enabling them to refine their articles to meet publication standards.
- 2. Emphasis on Integrity: The workshop emphasized transparency and integrity in presenting research results, instilling a sense of academic rigor among attendees.
- 3. Refinement of Skills: Attendees honed their research writing abilities, enhancing their confidence in contributing valuable insights to their fields of study.

Overall, the Pre-Conference Workshop on 'Writing Good Articles for Publications' was a cornerstone event, providing attendees with invaluable skills and knowledge essential for their academic and professional growth. The positive feedback and admiration from all stakeholders underscored the workshop's significance in the present times of scholarly pursuit.

# Title: 'Recent Scientific Advances in Dietary Supplements and Anti-Doping: Insights from BRICSCESS 2024 Pre-Conference Workshop



The Pre-Conference Workshop on 'Recent Scientific Advances in Dietary Supplements and Anti-Doping' held from 25th to 27th February 2024; led by Dr. Madhvi Awasthi and moderated by Ms. Divya Puri and Ms. Aradhana Sharma, the workshop featured a distinguished panel of experts, including Dr. Pooja Gaur, Dr. Samuel Pullinger, Dr. Kommi Kalpana, and Dr. Vibha Acharya, among others.

The workshop aimed to provide attendees with a comprehensive understanding of how nutrition impacts sports performance optimization, emphasizing personalized plan development, supplement evaluation, and anti-doping strategies. This knowledge is critical for enhancing athletic abilities, particularly in the context of India's global sporting aspirations leading up to the 2036 Olympics.

The discussions led by experts on 25th February delved into the safe usage of supplements and the ethical considerations of doping control. They emphasized the importance of informed decision-making and ethical conduct in sports nutrition.

The second day featured a panel discussion chaired by Col. (Dr.) Anup Krishnan (Retd), focusing on athlete education, third-party authentication systems, and counseling services integration. Panelists stressed the need for comprehensive support systems to safeguard athlete well-being and uphold sports integrity.

The workshop underscored the significance of youth engagement in sports for promoting physical activity, healthy lifestyles, and social development, aligning with Sustainable Development Goals (SDGs). With the upcoming Olympics in 2036, there is a unique opportunity to harness the momentum to advance SDGs and promote youth involvement in sports.

#### **Outcomes Achieved:**

- 1. Enhanced Awareness: Experts highlighted the importance of safe supplement usage and ethical conduct in sports, raising awareness among participants.
- 2. Ethical Framework: Participants gained insights into distinguishing between legitimate performance enhancement and doping, promoting ethical decision-making.
- 3. Advocacy for Support Systems: Panelists advocated for third-party authentication systems and counseling services integration to support athlete well-being and sports integrity.
- 4. Youth Engagement: The workshop emphasized the role of youth engagement in sports for achieving SDGs, aligning with India's global sporting aspirations.

Overall, the Pre-Conference Workshop on 'Recent Scientific Advances in Dietary Supplements and Anti-Doping' provided attendees with valuable insights and strategies to navigate the complex landscape of sports nutrition and integrity, empowering them to contribute positively to the field of sports science.

# **BRICSCESS 2024 Panel Discussion**

Title: Advancing Sports Performance: Insights from BRICSCESS 2024 Panel Discussion



The Panel Discussion on "Health and Sports Performance optimization through Yoga" held on 27th February 2024 at B Block, Manav Rachna International Institute of Research & Studies, was a pivotal event aimed at exploring the intersection of Yoga with health and sports performance. Chaired by Dr. Mantu Saha from DRDO, the panel comprised esteemed experts such as Dr. Manoj Kumar, Dr. Ram Narayan Mishra, Dr. S. Lakshmi

Kandhan, Dr. Usha Panjwani, and Dr. Rajesh Kumar.

The objectives of the discussion were twofold: to elucidate the role of Yoga in achieving optimal health and to harness its potential for enhancing sports performance. Through insightful deliberations, the panelists delved into various facets of Yoga, highlighting its profound impact on physical, mental, and emotional well-being.

Activities during the panel discussion included exploring the current trends in yogic research for children's health, discussing yogic applications in sports performance optimization, and examining the preventive, promotive, and therapeutic uses of Yoga for holistic health management. The discourse emphasized the importance of personalized yoga practices tailored to individual needs, spanning age groups and diverse sporting disciplines.

The outcomes achieved were multifaceted and promising. Knowledge sharing among panelists facilitated the exchange of best practices, current research findings, and innovative approaches in Yoga. This exchange is poised to catalyze advancements in sports science and promote overall well-being among athletes and individuals alike.

Increased awareness emerged as a key outcome, with participants gaining deeper insights into the benefits of Yoga for sports performance enhancement and holistic health. The discussion fostered a paradigm shift, encouraging individuals to prioritize athlete well-being as integral to achieving optimal performance in sports.

Moreover, the panel discussion served as a platform for collaboration and networking, fostering partnerships among research institutes, academic organizations, and medical professionals. This collaborative ethos is vital for advancing the field of Yoga sciences and translating research findings into actionable strategies for athletes.

Key highlights and takeaway messages underscored the holistic approach to individual well-being through Yoga, emphasizing its role in sports injury rehabilitation, research, and innovation. The integration of traditional Yoga practices with modern research methodologies emerged as a promising avenue for optimizing sports performance and promoting holistic well-being.

The panel discussion illuminated the transformative potential of Yoga in advancing sports performance and nurturing holistic health. As India sets its sights on the Olympics 2036, integrating Yoga into sports policy and practice can serve as a strategic game-changer, aligning traditional wisdom with futuristic applications to realize India's vision for sporting excellence.

# Title: Pioneering Sports Technology: Transforming India's Olympic Vision

The Panel Discussion on "Olympics 2036: Vision of India: TechPlay: Navigating the future of



sports technology" convened on 27th February 2024 at B-Block, igniting a pivotal conversation around the fusion of technology and sports in shaping India's Olympic aspirations. Led by Dr. Jatin Soni, Former Vice Chancellor of Swarnim Gujarat Sports University, the panelists, including Dr. Sujit Panigrahi, Mr. Ram Kumar Singh, Mr. JKL Prasad, Dr.

Hanjabam Barun Sharma, Dr. Piyush Jain, Dr. AK Bansal, and SUSHILO, explored the evolving landscape of sports technology.

The objectives of the discussion were twofold: to dissect the multifaceted implications of sports technology and to chart a course towards leveraging technological advancements for India's Olympic success in 2036.

Delving into diverse topics such as virtual reality, AI technologies, data analytics, and ethical considerations, the panelists engaged in a thought-provoking dialogue on the future trajectory of sports technology. They underscored the importance of developing a robust sports culture at the grassroots level, emphasizing the need for enhanced infrastructure, knowledge dissemination, and access to innovative technologies.

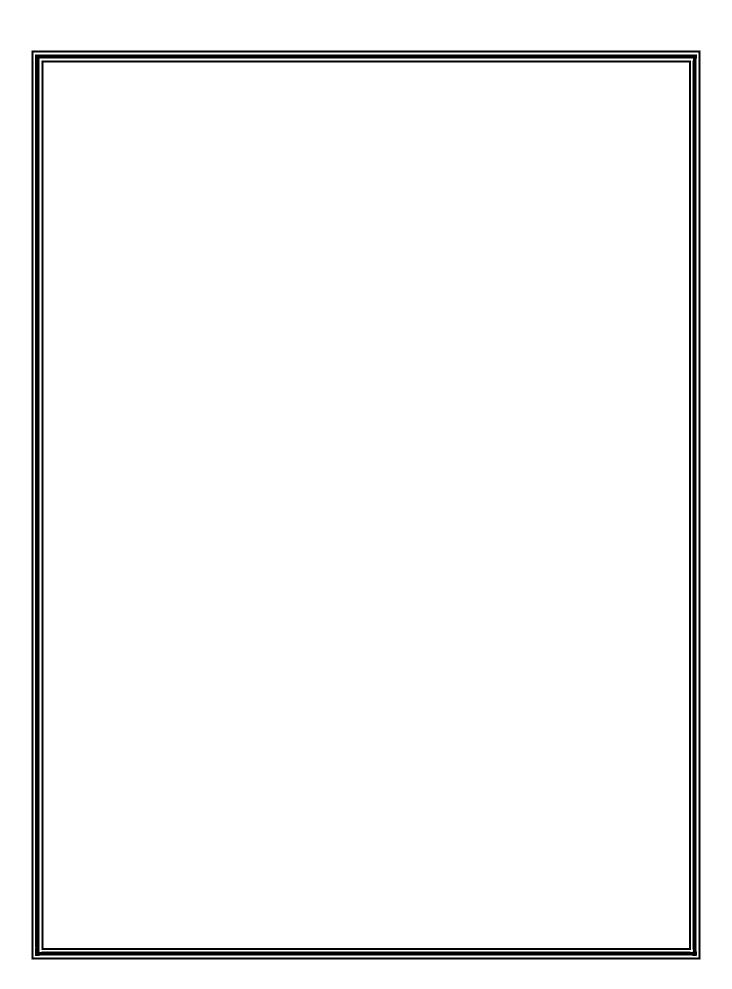
Key insights emerged, advocating for a holistic approach to athlete development encompassing physical education, AI-enabled coaching, and personalized training regimes. The discussion also highlighted the pivotal role of collaboration and networking in driving innovation, fostering partnerships between sports organizations, technology firms, and educational institutions.

The outcomes achieved were transformative, laying the groundwork for a paradigm shift in India's sports ecosystem. The discussion catalyzed awareness about the significance of school infrastructure and curriculum in nurturing sporting talent and promoting active lifestyles. It also facilitated collaborations, paving the way for the integration of cutting-edge technologies into sports training and performance monitoring.

Moreover, the panelists emphasized the holistic well-being of athletes, advocating for ethical guidelines and responsible use of sports technology to safeguard athlete welfare. They envisioned a future where sports technologies would democratize access to training and coaching, empowering athletes from diverse backgrounds to realize their full potential.

Key highlights and takeaway messages underscored the imperative of enhancing physical education, improving school infrastructure, and prioritizing athlete well-being. They emphasized the transformative potential of sports technology in revolutionizing India's approach to Olympic preparation and fostering a culture of excellence in sports.

The Panel Discussion on "Olympics 2036: Vision of India: TechPlay" emerged as a beacon of innovation and collaboration, charting a bold course towards India's Olympic glory. As the nation strides towards the future, integrating technology into the sports system will undoubtedly emerge as a strategic game-changer, propelling India towards its vision of Olympic excellence in 2036.



# Title: "Academia Athletica: Fusing Education and Sports for Tomorrow"



The panel discussion, titled "Olympics 2036 - Vision of India: Academia Athletica: Fusing Education and Sports for Tomorrow," convened on 27th February 2024 at the I Block Auditorium, MRIIRS, Faridabad. Led by esteemed figures such as Lt Gen (Dr.) J.S. Cheema, Col. Raj Singh Bishnoi, Dr. Jatin Soni, Dr. Dhananjoy Shaw, Dr. Manohar Lal, Dr. Kanwaljeet Singh, and Yogesh Chander, the discussion aimed to chart a strategic roadmap for

India's participation and success in the 2036 Olympic Games.

The objectives of the discussion were multifaceted, aiming to address challenges, explore opportunities, and foster collaboration between academia and athletics to propel India's sporting ambitions forward. Key areas of focus included athlete development, sports infrastructure, educational integration, policy formulation, and strategic planning.

The panel discussion unfolded as a dynamic exchange of ideas, insights, and strategies, highlighting the dual opportunity and challenge presented by the 2036 Olympics for India. Panelists emphasized the importance of strategic planning and investment in athlete development, infrastructure modernization, and talent identification. Discussions revolved around the need for a holistic approach that integrates academia and athletics to nurture talent, instill values of discipline and dedication, and promote excellence in sports.

Significant outcomes emerged from the discussion, including heightened awareness about the challenges and opportunities associated with India's Olympic aspirations. Participants gained valuable insights into the logistical, infrastructural, and competitive landscape, paving the way for informed decision-making and strategic planning. Key strategies and areas for investment were identified, including talent identification programs, athlete training facilities, sports science research, and the modernization of sports infrastructure.

The discussion also facilitated collaborative networks and partnerships among educational institutions, sports organizations, and government bodies. By fostering collaboration and knowledge sharing, the panel discussion laid the groundwork for future initiatives and partnerships aimed at advancing India's sporting ecosystem.

A comprehensive roadmap for success was formulated, outlining actionable steps and strategies for India's participation and success in the 2036 Olympic Games. This roadmap emphasized the importance of coordinated efforts, strategic planning, and investment in athlete development and infrastructure to realize India's potential as a sporting powerhouse on the global stage.

The panel discussion on "Academia Athletica: Fusing Education and Sports for Tomorrow" underscored the importance of collaboration, strategic planning, and investment in driving India's Olympic vision forward. By integrating academia and athletics, nurturing talent, and fostering a culture of excellence, India can position itself as a formidable contender in the 2036 Olympic Games and beyond.

# Title: "Rehabilitation Athletics: Redefining Recovery"



The panel discussion, titled "Olympics 2036: Vision of India: Rehabilitation Athletics: Redefining Recovery," convened on 27th February 2024 at the I-Block Auditorium. Led by Prof. Dr. Oleksandr Krasilshchikov, Dr. K.A. Thiagarajan, Dr. Vivek Kumar Mathur, Dr. AJ K Sinha, Dr. Dobson Domini, and Dr. Aijaz Ashai, the discussion aimed to redefine recovery practices for Indian athletes in preparation for the Vision Olympics 2036.

The objectives of the discussion were multifaceted, focusing on exploring innovative strategies, prioritizing mental and emotional well-being, ensuring inclusivity, fostering interdisciplinary research, and redefining recovery practices for Indian athletes aiming for success in the Olympics 2036.

The panel discussion served as a vital platform to address the optimization of athlete recovery processes, emphasizing the importance of holistic athlete care and the integration of traditional wisdom with modern sports science. Panelists engaged in insightful discussions covering various aspects of athlete recovery, including redefining recovery methods, mental health advocacy, inclusivity, accessibility, and collaboration.

Key insights emerged from the discussion, highlighting the significance of Long-Term Athlete Development (LTAD) programs, innovative recovery strategies, mental health support, collaboration among stakeholders, and research advancements. These insights underscored the need for a comprehensive approach to athlete well-being and recovery, emphasizing the importance of holistic care.

Several significant outcomes were achieved, including heightened awareness about the importance of athlete recovery and well-being, collaboration opportunities among stakeholders, knowledge sharing, advocacy for mental health, and emphasis on inclusivity and accessibility in recovery programs.

Key highlights and takeaway messages included the integration of tradition and innovation, holistic athlete well-being, collaboration for success, continued research and innovation, and prioritization of athlete well-being in recovery programs.

The panel discussion on "Rehabilitation Athletics: Redefining Recovery" provided valuable insights and recommendations for optimizing athlete recovery processes for Indian athletes aiming for success in the Vision Olympics 2036. By prioritizing athlete well-being, fostering collaboration, and advancing research and innovation, India can redefine recovery practices and support its athletes in achieving success on the global stage.

# BRICSESS 2024 - SCINETIFIC PROGRAM Day 1, February 26, 2024

February 26, 2024, Faridabad – The BRICSESS 2024 Conference, hosted at the Manav Rachna International Institute of Research and Studies (MRIIRS), Faridabad, set a new benchmark for academic conferences in the realms of health and sports sciences. With more than 450 delegates from 20 different countries participating, the event underscored the importance of physical activity, innovative technology integration, and the latest research in chronic disease reduction. The conference commenced with a registration session at the A Block Auditorium, leading into a

welcome session for dignitaries and participants.

# The Keynote address- Day 1

The highlight of the morning was the keynote address by **Prof. Stephen Kopecky** from the **Mayo Clinic, USA**, who is also a past president of the American Society for Preventive Cardiology. Prof. Kopecky's lecture on "Physical Activity and Reduction in Chronic Disease" set a high tone for the day, chaired by Prof. G. L. Khanna and Dr. Jatin Soni, both of whom facilitated the session with great expertise.

# **Specific Outcomes**

**Evidence-based Insights-** Prof. Kopecky presented compelling evidence linking regular physical activity with significant reductions in the incidence and severity of chronic diseases such as heart disease, diabetes, and cancer.

# Highlights and takeaway Message

The central takeaway from Prof. Kopecky's address was clear; Physical activity is a cornerstone of chronic disease prevention and should be a priority for individuals and societies alike. The benefits of exercise extend beyond physical health, contributing to mental well-being and quality of life. As healthcare professionals and policymakers, there is a critical need to advocate for and implement strategies that foster active lifestyles across all age groups and communities.

#### **Inauguration Ceremony**

The event began with the traditional Lighting of the Lamp and Saraswati Vandana, invoking the blessings of the Goddess of Knowledge and setting a tone of reverence and scholarly pursuit.

The proceedings swiftly moved to the Floral Welcome of the Chief Guest and Dignitaries, acknowledging their esteemed presence and contributions to the fields of health and sports sciences. This gesture of appreciation and respect was followed by a series of addresses that highlighted the vision and objectives of the conference.

Prof. G. L. Khanna, Pro Vice Chancellor of MRIIRS and a founding member & Vice President of BRICSCESS, delivered the Welcome Address. He emphasized the conference's critical role in advancing global dialogue on sports and health sciences. Furthermore, he majorly focused on MRIIRS's initiatives in promoting sports education and research, illustrating how Manav Rachna has emerged as one of the prime institutions for sports promotion. He also reinforced the institution's commitment to fostering global dialogue in sports and health sciences.

Dr. Sanjay Srivastava, Vice Chancellor of MRIIRS, then shared Enlightening Words, offering insights into the role of academic institutions in addressing contemporary challenges in health and physical education. His address was a source of inspiration, emphasizing the importance of innovation and research in making meaningful societal contributions.

Prof. Hans De Ridder from South Africa, President & Founding Secretary-General of BRICSCESS, provided Opening Remarks on the 3rd BRICSCESS, sharing his vision for the conference and the future of sports and health sciences education and research.

The ceremony was further enriched by the Release of the BRICSCESS Souvenir, Journal, and Book, a testament to the scholarly contributions and the collective knowledge shared during the conference.

Lt. Gen. Dr. Jagbeer Singh Cheema graced the occasion as the Guest of Honor, followed by Dr. Amit Bhalla, Vice President of Manav Rachna Educational Institutions, and Dr. Prashant Bhalla, President of Manav Rachna Educational Institutions, both of whom shared inspiring and presidential addresses, respectively. Their speeches underscored the importance of collaboration, innovation, and the nurturing of talent in the pursuit of excellence in sports and health sciences. The inauguration reached a high point with Words of Wisdom by the Hon'ble Chief Guest, Ms. Sujata Chaturvedi, Secretary Sports, Government of India who joined in an online manner. Her address highlighted the government's vision and support for sports and health initiatives,

The ceremony concluded with Felicitation and Awards, recognizing outstanding contributions to the field, followed by a Vote of Thanks by the Organizing Secretary, Dr. Sanjeev Gupta. This not only marked the culmination of the inaugural event but also set the stage for the insightful sessions and presentations that were to follow, embodying the spirit of collaboration, research, and innovation that defines the BRICSESS conference.

reinforcing the significance of such conferences in shaping policies and practices.

#### The Invited Talk 1

In the A Block Auditorium, **Prof. Hans De Ridder**, hailing from **South Africa** as the President of BRICSCESS and Senior Vice-President at ISAK, captivated the audience with his compelling discourse on "Concussion in Schools Rugby: Are We Winning the Battle?" His presentation not only highlighted the pressing concerns around sports-related injuries but also fostered a crucial dialogue on the need for enhanced safety protocols and preventive strategies in school sports programs. Through his expert insights, Prof. De Ridder underscored the importance of research and education in mitigating the risks associated with youth rugby, setting a proactive tone for the sessions that followed.

# **Specific Outcomes**

**Risk Assessment and Management:** He discussed the latest methodologies in risk assessment and management, emphasizing the need for accurate diagnosis, immediate response, and appropriate follow-up care for young athletes experiencing concussions.

# Highlights and takeaway Message

The crucial message from Prof. De Ridder's discourse was that while progress has been made in understanding and managing concussions in youth rugby, much work remains to be done. The battle against sports-related injuries requires a united front, involving educators, healthcare professionals, sports organizations, and the community. Research and education are key to developing and implementing effective strategies that can significantly reduce the incidence of concussions and ensure the safety and well-being of young athletes participating in school sports programs.

#### The Invited Talk 2

Mr. Ben Wells from the USA further enriched the discourse in Venue 2 with his presentation on "Innovative Integration of Technology in Physical Education, Physical Activity, and Active Living." His session illuminated the transformative potential of incorporating technology into physical education curricula, showcasing how digital tools and interactive platforms can significantly enhance engagement and effectiveness in promoting active lifestyles among students. Wells' practical examples and case studies provided attendees with a roadmap for integrating cutting-edge technology into physical education programs, emphasizing the role of

innovation in fostering a culture of health and wellness in educational settings. Through his forward-thinking approach, Wells inspired educators and practitioners alike to embrace technology as a pivotal component of modern physical education.

# **Specific Outcomes**

**Enhanced Engagement:** Wells demonstrated how incorporating technology into PE can significantly increase student engagement. He showcased examples of interactive fitness apps, virtual reality (VR) sports simulations, and online wellness challenges that captivate students' interest more effectively than traditional methods.

# Highlights and takeaway Message

The key takeaway from Mr. Ben Wells' presentation was clear: the integration of technology into physical education is not just a trend, but a necessary evolution to meet the needs of the modern student. By embracing digital tools and interactive platforms, educators can significantly enhance the effectiveness of PE programs, promoting active lifestyles and a culture of health and wellness among students. Wells' forward-thinking approach serves as an inspiration for educators and practitioners to explore and implement technological innovations in their teaching practices.

#### The Invited Talk- 3

Another session at venue 1 during the BRICSESS 2024 Conference, was held in the afternoon segment titled: "The Effect of Physical Activity-Based Brain Breaks on Gain Score." The **esteemed Prof. Gyasettin Demirhan from Turkey**, who serves on the Board of Directors for GCH and is the former President of the Turkish Sports Sciences Association, captivated the audience with his presentation. Prof. Demirhan, with his rich background as the former Dean of the Faculty of Sports Sciences at Hacettepe University, offered compelling evidence on the benefits of incorporating short bouts of physical activity—termed "brain breaks"—into the academic environment. His research presented a case for how these brain breaks can significantly improve students' cognitive functions, leading to enhanced academic performance, or "gain scores." The response from the audience was one of keen interest and engagement, with many participants eager to discuss the potential for applying Prof. Demirhan's findings in their own educational contexts. This session stood out as a highlight of the afternoon's agenda, offering innovative strategies to educators for fostering an environment conducive to both physical health and academic excellence.

#### **Specific Outcomes**

**Cognitive Enhancement:** Prof. Demirhan's research provided substantial evidence that short bouts of physical activity, or brain breaks, significantly enhance cognitive functions such as memory, attention, and problem-solving skills.

# **Highlights and takeaway Message**

The principal message from Prof. Demirhan's presentation was the undeniable benefit of incorporating physical activity-based brain breaks into the academic environment. These breaks not only serve as a tool for enhancing physical health but also play a critical role in boosting cognitive functions and, by extension, academic performance. His research offers a compelling case for educators and policymakers alike to embrace this innovative strategy, promising a more holistic approach to student development that balances physical well-being with academic excellence.

These sessions were chaired by distinguished professionals including Prof. Divya Sanghi, Dr. Mahak Sharma, Dr. VP Gupta, Prof. Ricardo R. Uvinha, Dr. Punit Batra, Prof. Samiran Mondal and Mr. Cak Susilo, ensuring rich discussions and engagement from the audience.

#### The Invited Talk- 4

At another venue of the BRICSESS 2024 Conference, a pivotal session unfolded, featuring **Assoc. Prof. Maya Van Gent from South Africa**. With a focus on "Influence of a Physical Activity and Psychosocial Intervention on Risk Factors Associated with NCD among Adolescents," the presentation offered a comprehensive look at the intersection of physical activity and mental health in the context of non-communicable diseases (NCDs). Prof. Dane Coetzee, She is a Ull Time Professor In The Scholl Of Human Movement Sciences, At North West Universities, Potchefstroom Campus. She Has Been Representing South Africa as a senior FLV Senior 2016. She Discussed the Relation of Strength Sills and BMI Among Children of Different Age Groups.

The session was chaired by Prof. Waheeda Khan and Prof. Taranjeet Duggal, whose expertise contributed to the nuanced discussion that followed the presentation. Their stewardship facilitated a rich dialogue on the critical role of holistic approaches to adolescent health and prevention strategies for NCDs.

#### **Specific Outcomes**

**Psychosocial Support:** The importance of psychosocial support in complementing physical activity interventions was highlighted, showcasing its role in improving overall health outcomes.

# Highlights and takeaway Message

Coetzee's research highlighted the varied correlations between strength skills and BMI across different age groups, suggesting tailored approaches for physical education. The findings emphasized the importance of developing strength skills as a foundation for both health and performance in physical activities, with implications for preventing obesity and enhancing physical literacy among children. The session provided practical guidelines for incorporating strength-based activities into physical education curricula, aiming to optimize health outcomes and physical performance from an early age.

#### **Invited Talk-5**

Effects of Brain Breaks and Physical Activity Videos on Focus, Attention, Time on Task, and Academic Achievement in Turkey was presented by **Dr. Bijen Filiz, Turkey**. During the insightful session at the BRICSESS 2024 Conference, Dr. Bijen Filiz presented on the innovative topic of how brain breaks and physical activity videos can enhance focus, attention, time on task, and academic achievement among students in Turkey.

#### **Specific Outcomes:**

**Enhanced Student Engagement:** Dr. Filiz's research demonstrated that short, structured breaks for physical activity within the academic environment significantly improve students' engagement and concentration. These breaks, often facilitated through engaging videos, help refresh students' focus and readiness to learn.

#### **Highlights and Takeaway Message:**

Dr. Bijen Filiz's presentation at the BRICSESS 2024 Conference illuminated the positive effects of integrating physical activity into the educational setting. Through the use of brain breaks and physical activity videos, educators have a powerful tool at their disposal to enhance student focus, attention, and academic outcomes.

The session emphasized the importance of adopting innovative strategies to support students' physical and cognitive development, especially in a landscape where traditional learning environments are being challenged. Dr. Filiz's findings offer compelling evidence that short, engaging physical activities not only contribute to better health but also play a crucial role in improving students' academic performance and engagement.

#### The Invited Talk- 6

Relationship of BMI on Agility and Strength Skills of Six- to Eight-Year-Old Learners in the North West Province of South Africa. The PERF-FIT Study was presented by **Prof. Dané Coetzee, North-West University, South Africa.** Prof. Dané Coetzee's presentation focused on the findings from the PERF-FIT study, which examined the relationship between Body Mass Index (BMI) and the agility and strength skills of children aged six to eight in the North West Province of South Africa.

# **Specific Outcomes**

**Significant Correlations: The** study revealed significant correlations between higher BMI and decreased performance in agility and strength-related physical activities. These findings underscore the importance of addressing overweight and obesity issues at an early age to enhance physical capabilities.

# Highlights and takeaway Message

The presentation by Assoc. Prof. Nara Rejane Cruz de Oliveira at the BRICSESS 2024 Conference shed light on the significant impact of social distancing on physical activity and the well-being of Brazilian children during the COVID-19 pandemic. By providing a thorough analysis, the session aimed to understand the consequences of reduced physical interactions on children's health and identify effective strategies to mitigate these effects. Prof. Coetzee discussed the implications of these findings for physical education programs, suggesting the need for tailored activities that can accommodate children of varying BMI levels to improve their agility and strength skills.

The sessions were chaired by senior panellists like Prof. Cak Susilo from Indonesia, Prof, Inal from Turkey, Prof. Yulia from Moscow, Dr. Gurjeet Kaur Chawla, Dr. Pooja Anand from India.

#### The Invited Talk-7

Physical Education, Well-Being, and Health Among Brazilian Children During the Social Distancing Period was presented by Assoc. Prof. Nara Rejane Cruz De Oliveira, Human Movement Sciences Dept., Federal University of Sao Paulo, Brazil. In a compelling afternoon session at the BRICSESS 2024 Conference, Assoc. Prof. Nara Rejane Cruz De Oliveira provided an in-depth look into the impact of COVID-19 pandemic's social distancing measures on physical education, well-being, and health among Brazilian children. Representing the Human Movement Sciences Department at the Federal University of Sao Paulo, her presentation highlighted the challenges and adaptations within the realm of physical education due to the abrupt shift to virtual learning and limited physical activity.

#### **Specific Outcomes**

**Significant Correlations:** Assoc. Prof. Cruz De Oliveira detailed the difficulties faced by educators and students in transitioning physical education programs to virtual formats, emphasizing the challenge of engaging children in physical activity within confined spaces. The research presented offered a clear picture of the effects that reduced physical activity and the isolation of social distancing have had on the well-being and health of children. Despite these challenges, Assoc. Prof. Cruz De Oliveira's findings also illuminated the resilience of educators and the potential of creative approaches to sustain physical education and promote health during unprecedented times.

#### Highlights and takeaway Message

The innovative strategies shared by Assoc. Prof. Cruz De Oliveira serve as a testament to the adaptability and creativity of educators in the face of global challenges, offering a blueprint for sustaining physical education and wellness among children under any circumstances.

This session stood out as a testament to the resilience and innovation within the field of physical education during the COVID-19 pandemic, providing valuable insights and practical solutions for navigating the challenges of engaging children in physical activity and ensuring their well-being during periods of social isolation. The session, expertly chaired by Prof. Dr. Oleksandr Krasilshchikov, facilitated an engaging discussion on the importance of physical education as a critical component of children's daily routines, especially during periods of extended home stay.

# Workshop-1

# Workshop Title: Learn How to Establish Lifelong Healthy Behaviours in Children and Youth Using a Science-based, Child-friendly, Sustainable Approach

Conducted by: Dr. Michelle Lombardo, President, The Organ Wise Guys Inc., USA

In a highly interactive and engaging workshop at the BRICSESS 2024 Conference, Dr. Michelle Lombardo provided attendees with valuable insights and practical tools to foster lifelong healthy behaviors in children and youth. Representing The Organ Wise Guys Inc., Dr. Lombardo introduced a science-based yet child-friendly approach that promises sustainability in promoting health among the younger population.

### **Specific Outcomes**

Science-based Strategies: Dr. Lombardo shared evidence-based strategies that emphasize the importance of integrating scientific understanding of health with practical applications. This approach ensures that health promotion activities are both effective and grounded in reliable research. The workshop highlighted the significance of making health education appealing and accessible to children. Dr. Lombardo showcased how storytelling, interactive games, and engaging characters can be powerful tools in teaching children about their bodies and how to care for them.

### **Highlights and Takeaway Message:**

Dr. Lombardo's workshop stood out as a pivotal session for educators, healthcare professionals, and policymakers looking to integrate more holistic and sustainable health practices into educational settings. Participants were equipped with a variety of resources and techniques designed to make health education more dynamic, engaging, and effective for children and youth.

The key takeaway from this workshop is the crucial role of innovative, science-based, and child-friendly approaches in establishing healthy behaviors early in life. Dr. Lombardo's work with The Organ Wise Guys Inc. exemplifies how health education can be both informative and enjoyable, leading to better health outcomes and fostering a culture of wellness from a young age.

#### **Scientific Oral and Poster Presentation**

In conjunction with this session, the conference also hosted the series of oral presentations led by Dr. Bibhu Kalyan Nayak. As both the lead speaker and chair, Dr. Nayak provided an authoritative voice on the latest research findings, further enriching the academic offerings of the afternoon at Venue 2.

Together, these sessions underscored the multidisciplinary nature of health science, highlighting the importance of integrating physical and psychological well-being strategies to address the complex challenge of NCDs among the youth. The presentations sparked conversations on actionable insights and underscored the critical need for interventions that cater to both the physical and mental health of the upcoming generations.

Parallel to this session was OR-02, featuring oral presentations led by Prof. Sandeep Tiwari. As both the lead speaker and chair, Prof. Tiwari curated a series of talks that further emphasized the multifaceted nature of health and sports science research, offering additional perspectives on topics pertinent to the field.

The sessions at different venues offered a robust exchange of knowledge and practices that accentuated the importance of physical activity as a vital component of academic success and student well-being. Through these discussions, the conference showcased innovative research methods and practical solutions aimed at enhancing the educational experience through health and fitness.

BRICSESS 2024 Conference further captivated its audience with a series of paper and poster presentations that served as the academic backbone of the event. Day 1, approximately 30 paper presentations were delivered across various sessions, showcasing cutting-edge research and innovative practices in health and sports sciences. These presentations, led by experts and emerging researchers from around the globe, facilitated deep dives into topics ranging from physical activity's impact on chronic disease prevention to the integration of technology in sports education.

In addition to the paper presentations, the conference also featured 15 poster presentations, offering a visual and interactive platform for researchers to share their findings and engage in meaningful discussions with attendees.

The seamless organization of the BRICSESS 2024 Conference speaks volumes about the dedication and hard work of the MRIIRS faculty and organizing committee. Under the guidance of luminaries such as Dr. G. L. Khanna, the event not only facilitated the exchange of groundbreaking research and ideas but also fostered an environment of learning and collaboration.

Glimpse of Day 1









# Day 2, February 27, 2024

On the second day of the BRICSESS 2024 Conference in Faridabad, a series of invigorating discussions and presentations illuminated the auditoriums, emphasizing the conference's commitment to advancing health, fitness, and sports sciences globally. The day started with a thematic orientation, preparing the attendees for the depth and breadth of discussions that were to follow.

#### The Keynote address- 2

The highlight of the morning was **Prof. G.L Khanna's** keynote address on the "Holistic Development of Fitness in Children and Youth in India" held in the A Block Auditorium. Prof. Khanna, a founding member and Vice President of BRICSCESS and Pro Vice Chancellor at the Manav Rachna International Institute of Research and Studies, India, delivered a compelling

vision for integrating physical education into the daily routines and community life to nurture a healthier future generation. His address, chaired by Prof. Hans de Ridder and Dr. Ghanshyam Dokhrat, underscored the necessity of a sustainable model that encourages physical activity from a young age.

# **Specific Outcomes:**

**Integrated Approach to Physical Education:** Prof. Khanna advocated for an integrated model of physical education that extends beyond traditional school curricula to become a part of daily routines and community activities. This approach aims to ensure that children and youth in India develop a sustainable habit of physical activity.

# Highlights and takeaway Message

The keynote set a high standard for the conference, emphasizing that the holistic development of fitness in children and youth is not only beneficial for individual health but also crucial for the broader societal well-being. It encouraged attendees to consider innovative approaches to physical education, with a focus on creating a sustainable and active future for the next generations.

#### The Invited Talk-8

The first invited speaker session of the day at Venue 1 of the BRICSESS 2024 Conference featured a thought-provoking presentation by Ricardo R. Uvinha, who delved into the "Development of Sport and Leisure Policies through Regional Partnerships". His presentation underscored the vital role of collaboration in enhancing health outcomes through physical activity. Hosted in the A Block Auditorium, this session was instrumental in steering the day's discussions towards the intersection of policy, sport, and community health.

# **Specific Outcomes:**

**Strategic Partnerships for Policy Development:** Uvinha highlighted the essential role of regional partnerships in formulating and implementing sports and leisure policies. He emphasized how collaborations between governments, educational institutions, and community organizations could lead to more effective and inclusive policies that promote physical activity as a cornerstone of public health.

# Key Highlights and Takeaway Message:

A central theme of Uvinha's discourse was the transformative potential of collaboration in the realm of sports policy development. He illustrated how multi-stakeholder partnerships could drive the creation and implementation of policies that encourage active lifestyles, particularly in underserved communities. Uvinha's address extended the conversation beyond the physical health benefits of sport and leisure activities, to include their impact on mental health, social cohesion, and community well-being. This holistic view reinforces the importance of sport and leisure activities as integral components of public health strategies.

#### The Invited Talk 9

In an insightful session at the BRICSESS 2024 Conference, Prof. Gushchina Yulia from Russia presented a compelling discourse on "Youth Health in Focus: Integrating Pharmacology and Epidemiology for Comprehensive Sports Science Advancements." The session took place at venue 2, drawing a keen audience interested in the intersection of health sciences and sports.

#### **Specific Outcomes:**

**Interdisciplinary Approach**: Prof. Yulia's presentation highlighted the importance of an interdisciplinary approach, combining pharmacology and epidemiology, to address youth health within the sports science domain. This method aims to provide a more nuanced understanding of how to enhance athletic performance while safeguarding youth athletes' health. The discussion

emphasized recent advancements in sports science that could significantly benefit youth health. By integrating pharmacological insights and epidemiological data, researchers and practitioners can develop targeted strategies to prevent injuries, enhance recovery, and improve overall wellbeing among young athletes.

# **Highlights and Takeaway Message:**

The core message from Prof. Gushchina Yulia's session centered on the critical need for a comprehensive and interdisciplinary approach to youth health in sports science. By blending pharmacological research with epidemiological findings, the sports science community can pioneer more effective health strategies and injury prevention methods tailored to young athletes. This approach not only aims to enhance athletic performance but also ensures the long-term health and well-being of the youth involved in sports.

# The Invited Talk 10

During an insightful session at the BRICSESS 2024 Conference, Dr. Antonín Kuban presented groundbreaking strategies on "Best Practice, Enhancing Children's Physical Activity (PA) in Kindergartens by Connecting Music and Movement in Pre-school Education." Held in a collaborative and interactive atmosphere, Dr. Kuban's presentation highlighted the intersection of music, movement, and early childhood education, aiming to significantly boost physical activity levels among preschool children.

# **Specific Outcomes:**

**Innovative Integration:** Dr. Kuban introduced innovative methodologies for integrating music and movement into daily routines of kindergartens, showcasing how these elements can naturally enhance children's engagement in physical activity. The session was grounded in evidence-based research demonstrating the effectiveness of music and movement in improving children's motor skills, coordination, and overall physical well-being.

# Key Highlights and Takeaway Message:

The main highlight of Dr. Kuban's presentation was the clear demonstration that music and movement are powerful tools in promoting physical activity among young children. This approach not only supports the physical development of children but also contributes to their social, emotional, and cognitive growth. The session underscored the importance of creating engaging, enjoyable, and educationally rich environments that encourage children to be active, creative, and expressive through music and movement.

#### The Invited Talk 11

Assoc. Prof. Dr. Biljana Popeska delivered a compelling session at the BRICSESS 2024 Conference, focusing on the "Physical Activity Level and Psychological Well-being of University Students and Possibilities for Its Improvement: Case Study from North Macedonia." This presentation shed light on the crucial link between physical activity and psychological well-being among university students, drawing on research and observations from North Macedonia.

# **Specific Outcomes:**

**Comprehensive Research Findings:** Dr. Popeska shared findings from a comprehensive study that examined the current levels of physical activity among university students in North Macedonia and its direct correlation with their psychological well-being. The session highlighted several challenges faced by students that hinder their participation in regular physical activity, including academic pressures, limited time, and lack of motivation.

# **Key Highlights and Takeaway Message:**

The key takeaway from Dr. Popeska's presentation was the clear evidence supporting the positive impact of regular physical activity on the psychological well-being of university

students. The case study from North Macedonia highlighted the need for universities to adopt more proactive approaches in encouraging physical activity among students, recognizing it as a vital component of student wellness and academic success.

#### The Invited Talk 12

At the BRICSESS 2024 Conference, **Prof. Rajesh Kumar** presented a significant session on the "Impact of Physical Activity Programs in Schools for Promotion of Fitness among Students," providing valuable insights into the benefits and effectiveness of structured physical activity programs in enhancing student fitness. Drawing from his extensive experience and research in the field, Prof. Kumar's session offered a comprehensive overview of how schools can play a pivotal role in fostering a culture of health and fitness among students.

# **Specific Outcomes:**

**Evidence of Improvement:** Prof. Kumar highlighted substantial evidence indicating that regular participation in physical activity programs significantly improves students' physical fitness, including enhanced cardiovascular health, strength, and flexibility. The presentation also shed light on the psychosocial benefits of physical activity, such as improved self-esteem, mental health, and academic performance, reinforcing the holistic value of fitness programs in schools.

# **Key Highlights and Takeaway Message:**

The core message of Prof. Kumar's presentation was the critical impact of school-based physical activity programs in promoting health and fitness among students. He underscored the necessity for schools to adopt and prioritize such programs as integral components of education, highlighting their role not only in improving physical health but also in enhancing psychological well-being and academic outcomes.

During the day's proceedings, a notable feature was the innovative "Brain Break" session conducted by Future Learning Volunteers (FLVs), designed to re-energize and motivate the students and attendees. This interactive interlude, strategically placed between intense discussions and presentations, underscored the practical application of physical activity in enhancing cognitive engagement and overall well-being.

The cultural programme featuring Rahul Yadav & Team brought a vibrant and creative interlude to the day, showcasing the rich talent that has graced stages like India's Got Talent & America's Got Talent. This performance not only provided a break from the scientific discussions but also celebrated the cultural diversity and artistic excellence present within and beyond the conference. The afternoon sessions transitioned into oral presentations across several venues, offering a platform for emerging research and discussions on a wide array of topics within physical education, health sciences, and sports technology. These presentations, led by notable experts such as Dr. Dhananjay Shaw, Dr. Mohit Dua, and Dr. Sridip Chaterjee, provided valuable insights and fostered dialogue among attendees.

# Workshop-2:

Workshop Title: Young and Old Alike: Agility Skills Testing and Training within a Long-term Physical Development Model

Conducted by Prof. Erika ZEMKOVÁ (Slovakia), Comenius University in Bratislava, Slovakia

Prof. Erika Zemkova from Slovakia led an insightful workshop focused on agility and reaction time in sports, areas crucial for athletes across a wide range of disciplines. This session dove deep into the mechanics of how agility and reaction time are integral components of sports performance, exploring the underlying principles that make these skills essential for competitive success.

The second day of the BRICSESS 2024 Conference was a testament to the power of collaboration, innovation, and dialogue in building a healthier, more active world. Through a blend of expert insights, scientific discussions, and cultural exchanges, the conference underscored the critical role of holistic health, research, and international partnerships in the global pursuit of wellness and fitness.

The concurrent sessions held across different venues fostered a dynamic exchange of insights and strategies, highlighting the critical link between physical activity and the holistic development of students' academic and emotional well-being. The discourse throughout the day emphasized innovative research methodologies and actionable strategies to integrate health and fitness into the educational paradigm, enhancing the overall learning environment.

# **Scientific Oral and Poster presentations:**

The BRICSESS 2024 Conference further engaged its participants with an array of paper and poster presentations that formed the scholarly core of the event. Over the course of the conference, around 30 paper presentations were conducted in various thematic sessions, presenting the forefront of research and novel approaches in the fields of health and sports science. These presentations, conducted by leading scholars and rising stars in the research community from across the world, delved into subjects as diverse as the role of physical activity in preventing chronic illnesses to the adoption of technological advancements in sports training. Complementing the oral presentations, the conference also showcased 20 poster presentations. These provided a visual and engaging medium for presenters to display their research outcomes and foster interactive discussions with the audience, further enriching the collaborative and learning atmosphere of the conference.

Panel Discussion Report: Olympics 2036 - Academia Athletica Introduction:

The panel discussion on "Olympics 2036: Academia Athletica" shed light on crucial strategies and initiatives to enhance sports performance and secure a commendable medal count in the upcoming Olympics. Key stakeholders emphasized the pivotal role of early sports involvement, integration of sports into the education system, and increased investment in athletic development.

# **Key Discussion Points:**

# 1. Early Start in Sports:

Panel members highlighted the significance of initiating sports training at a young age, ideally between 8 to 10 years old. Early exposure to various sports fosters skill development, physical fitness, and a competitive mindset, laying a strong foundation for future athletes.

# 2. Inculcating Sports Performance in Credit System:

A novel approach proposed during the discussion was the integration of sports performance into the credit system of educational institutions. By assigning credits for participation in sports activities, schools can incentivize students to engage actively in sports alongside their academic pursuits, promoting a balanced and holistic development.

# 3. Targeting 50 Medals in Olympics 2036:

A collective aspiration emerged from the panel to aim for a minimum of 50 medals in the Olympics 2036. This ambitious goal necessitates concerted efforts from various stakeholders, including sports federations, government bodies, educational institutions, and athletes themselves.

#### 4. Early Introduction of Children into Sports:

Emphasizing the need for grassroots-level initiatives, panelists advocated for structured sports programs catering to children from diverse backgrounds. Identifying and nurturing talent at an early stage ensures a pipeline of skilled athletes capable of competing at the international level.

#### 5. Increased Expenditure on Sports:

It was unanimously agreed upon that substantial investment in sports infrastructure, training facilities, coaching staff, and athlete support systems is imperative to bolster the nation's performance in global sporting events like the Olympics. Adequate funding channels must be established to sustain long-term athlete development programs.

#### 6. Alignment of Sport Curriculum with National Education Policy 2020:

Aligning the sports curriculum with the objectives outlined in the National Education Policy 2020 emerged as a strategic imperative. By integrating sports into the mainstream educational framework, the holistic development of students can be promoted, fostering a culture of sportsmanship and fitness.

The panel discussion concluded on an optimistic note, with a shared commitment to implementing the proposed strategies and initiatives to realize the vision of Academia Athletica. By nurturing young talent, investing in infrastructure, and aligning sports with education, the nation can aspire to achieve remarkable success in the Olympics 2036 and beyond.

Glimpses of Day2









# Day 3, February 28, 2024

The third day of the BRICSESS 2024 Conference in Faridabad unfolded with an array of discussions that continued the momentum of the previous days, focusing on the advancement of holistic health, innovative sports sciences, and the integration of technology in physical education. The day commenced with a thematic orientation that set the stage for the depth of knowledge and expertise that would characterize the sessions ahead.

#### **Kev Note Address: 3**

The morning was highlighted by a keynote address from Prof. Mingkai Chin (USA), Founder and President of The Foundation for Global Community Health (GCH). Prof. Chin spoke on "Connecting Holistic Health to Interactive Technology in Youth and Community through the United Nations Sustainable Development Goals 2030." His expertise as the founding and immediate past president of BRICSCESS and his tenure at HOPSports Inc. lent significant weight to his insights. The session was chaired by Prof. Stephen Kopecky and Dr. A G K Sinha.

# **Specific Outcome:**

Designing Interactive Health Palform: Developing use froiendly platformas to promote holistic health. The educational purpose can also be solved. Manav Rachna can take a lead on this make such task in collaboration with Government of India.

# Hight lights and Take home Message:

**Holistic Health Integration:** Prof. Mingkai Chin emphasized the importance of integrating holistic health practices into interactive technology platforms. This approach ensures that youth

and communities can access comprehensive health solutions that address physical, mental, and social well-being.

**Alignment with UN SDGs:** The presentation highlighted the significance of aligning efforts with the United Nations Sustainable Development Goals (SDGs) 2030. By incorporating holistic health principles into technology initiatives, communities can work towards achieving these global targets for health and well-being.

**Youth Empowerment:** Prof. Chin likely discussed empowering youth through technology to take charge of their health and contribute to community well-being. Interactive platforms can provide educational resources, tools for self-care, and avenues for civic engagement, empowering young people to become agents of positive change.

# **Key Note Address: 4**

Following Prof. Chin, Prof. Uri Schaefer from Israel delivered a keynote address on "Promoting Holistic and Sustainable Physical Education and Physical Activity for Children and Youth." His role as President of the International Council of Sport Sciences and Physical Education (ICSSPE) and experience as an executive director and start-up consultant provided a practical framework for the discussion. The session was chaired by Prof. Ricardo R. Uvinha and Dr. Amrinder Singh.

# **Specific Outcome:**

# Curriculum Development and Teacher Training and Capacity Building

Collaborating with education experts, health professionals, and community stakeholders to design a curriculum that integrates physical activity with principles of holistic health. The curriculum could encompass various forms of physical exercise, mindfulness practices, nutrition education, social-emotional learning, and environmental sustainability concepts.

#### **Invited Talk 13**

Prof. Serap Inal from Turkey, Dean and HOD at Istanbul Galata University, shared her expertise on the prevention of knee joint injuries among prepubertal and pubertal children through programs like 11+ and FIFA 11+. This session was chaired by Prof. Uri Schaefer and Dr. Manohar Lal.

#### **High lights and Take-home Message:**

The key message is that proactive measures can significantly decrease the risk of injuries, allowing young athletes to enjoy sports participation safely and sustainably. Early Intervention, Comprehensive Approach and Educating Stakeholders need to be addressed

#### **Invited Talk 14**

Assoc. Prof. G. Balasekaran from Singapore, President of the Asian Council & Exercise Sports Science, and ACSM Health Fitness Director, discussed the use of the OMNI Rate of Perceived Exertion (RPE) Scale to self-regulate exercise intensity. Concurrently, Yew Cheo NG of Nanyang Technological University, Singapore, presented on the effects of external pneumatic compression after anaerobic exercise.

#### **Invited Talk 15**

Assoc. Prof. Foong Kiew Ooi from Malaysia, a lecturer and former program chairman at Universiti Sains Malaysia, explored the influence of sports participation, genetic factors, and nutritional supplementation on bone health and muscular performance in the young population.

# **High light and Take home message:**

The integration of sports participation, genetic insights, and nutritional supplementation offers a comprehensive approach to enhancing bone health and muscular performance in young populations. By addressing these factors in a holistic and individualized manner, athletes can optimize their physical capabilities and lay the groundwork for lifelong health and athletic success.

#### **Invited Talk 16**

Garry Kuan from Malaysia, Secretary-General of the Asian-South Pacific Association of Sport Psychology and Executive Board Member of the Asian Council of Exercise and Sports Science (ACESS), presented "The Innovative Approach of Using Music for Health and Sport: From Conceptual Underpinnings to Applications." Prof. Kuan, associated with the Exercise and Sports Science Programme at Universiti Sains Malaysia, shared insights on the intersection of music and movement in sports psychology and the application of these principles to enhance performance and well-being in athletes.

# High lights and Take home message:

The session provided a platform for discussing how music can be effectively integrated into health and sports programs to boost motivation, performance, and recovery.

#### **Invited Talk 17**

Larissa Pires from Brazil, of the Health Sciences Federal University of São Paulo-Santos, presented a critical analysis on "Mental Health, Resilient Coping Strategies and Hope of Residents of the City of São Paulo During the Period of Social Distancing in the COVID-19 Pandemic." This session explored the psychological impact of the pandemic on the populace, delving into the coping mechanisms adopted by individuals to maintain mental health amidst unprecedented social isolation. Pires's presentation brought to light the resilience strategies that can be employed in future scenarios of societal stress and the importance of mental health considerations in public health planning.

#### **Scientific Oral and Poster Presentations:**

The afternoon sessions featured 40 oral presentations and 20 poster presentations across various venues, highlighting emerging research in physical education, health sciences, and sports technology. In the session titled "Effect of Training on Heart Functions of Athletes," Dr. Kishore Mukhopadhyay, an associate professor in physical education at Union Christian Training College in India, discussed the physiological impact of athletic training on cardiovascular functions. His presentation covered the various adaptations the heart undergoes as a result of consistent athletic training, ranging from resting heart rate changes to improved efficiency and cardiac output. This session offered invaluable insights into how training regimens can be optimized for athletes' cardiac health and performance.

Dr. Vivek Mathur was the Chairperson and lead speaker in one of the venue who addressed the audience with his words of knowledge and wisdom emphasising the importance of sports and nutrition in the field of research. He very well explained how the field of nutrition science and physiotherapy is gaining importance and students prefer opting for a career in the field of Sports, Nutrition, and physiotherapy. Finally, the chairperson wished all the participants good luck for

their presentations and declared the session open for presentations. There were a total of four presentations in the sessions which were presented well by the participants.

The conference also included cultural interludes and innovative "Brain Break" sessions to fuse scientific discourse with creativity and physical activity, emphasizing the holistic approach to health and well-being.

Day 3 of the BRICSESS 2024 Conference showcased the critical role of interdisciplinary approaches in sports sciences, the innovative use of technology in health education, and the integration of physical activity into daily life. The exchange of insights and research findings contributed to a rich dialogue on strategies to foster a more active and health-conscious society.

# Glimpses of Day3









# Day 4, February 29, 2024

The BRICSESS 2024 Conference in Faridabad concluded its final day with influential keynotes, meaningful research presentations, and a ceremonial closing that highlighted the event's commitment to advancing sports science and health education.

#### The Keynote address- 5

**Prof. Myriam Guerra-Balic from Spain** delivered a keynote address titled "Adapted Judo for Children with Autistic Spectrum Disorder: the AUTJUDO Project." As a board member at GCH and part of FPCEE-Blanquerna, University Ramon Llull (Spain), she presented the positive effects of adapted judo as an intervention for children with ASD. The session was expertly chaired by Prof. Giyasettin Demirhan and Dr. Seema Grover.

#### **Specific Outcomes:**

**Enhanced Social Skills and Confidence:** Prof. Guerra-Balic shared compelling evidence from the AUTJUDO project demonstrating that participation in adapted judo significantly improves social interaction, communication, and confidence among children with ASD. The presentation detailed how adapted judo helps in improving motor skills, coordination, and cognitive functions, contributing to the overall development of children with ASD.

# **Key Highlights and Takeaway Message:**

The keynote address by Prof. Myriam Guerra-Balic illuminated the profound benefits of integrating adapted judo into therapeutic interventions for children with ASD. The AUTJUDO project stands as a testament to the potential of sports as a medium for social and personal development, challenging traditional perceptions of physical education for children with special needs.

#### The invited Talk 18

Dr. Mottakin Ahmed's presentation focused on the critical issue of "Childhood Obesity and its Associated Factors among School Going Children in Raisen, Madhya Pradesh, India." His study pointed to urgent public health measures needed to combat obesity in children. Dr. Geeta Thakur and Dr. Sarvotam Chauhan chaired this session, emphasizing the necessity of early preventive measures.

# **Specific Outcomes:**

**Identification of Contributing Factors:** Dr. Ahmed's research identified several key factors contributing to the high rates of obesity among children in the region, including dietary habits, physical inactivity, and socio-economic status. The presentation outlined specific recommendations for public health measures that could be implemented to combat the rising trend of childhood obesity. These include the development of school-based nutritional programs, increased opportunities for physical activity, and awareness campaigns targeting both children and parents.

# Key Highlights and Takeaway Message:

Dr. Mottakin Ahmed's session on childhood obesity in Raisen, Madhya Pradesh, served as a compelling call to action for health professionals, educators, policymakers, and the community at large. It stressed the importance of a multi-faceted approach in addressing the factors associated with childhood obesity and the implementation of early preventive measures.

The valedictory ceremony, a reflective session, brought the conference to a memorable close. During this ceremony, Dr. Sanjeev Gupta presented the final report of the conference,

summarizing the key outcomes, discussions, and future directives that emerged from the sessions.

Dr. Nitesh Malhotra delivered the vote of thanks, expressing gratitude to all the delegates, speakers, and participants for their invaluable contributions and for making the conference a fountainhead of knowledge and collaboration.

Dr. Sanjay Shrivastava, Vice Chancellor of MRRIRS, provided motivational remarks that resonated with all present. He acknowledged the hard work and enthusiasm of the student volunteers and committee members, whose contributions were pivotal to the conference's success. His words served as an inspiration, celebrating the spirit of volunteerism and the role it played in orchestrating such a monumental event.

The final day of the BRICSESS 2024 Conference was an embodiment of the collaborative spirit that defines the sports science and health education community. The event's success laid the foundation for ongoing and future initiatives aimed at creating a healthier global community. The conference closed on a high note, with attendees and organizers alike looking forward to continuing the dialogue and partnerships in the years to come.

In all 104 oral papers were delivered. Further over 75 Poster were displayed. The delegates all over the world appreciated the hard work put in by whole team.

# Glimpse of Day 4









\*\*\*End of Report\*\*\*