Organiser

Co-organisers

19th – 22nd Jan. 2025

Health Campus, Universiti Sains Malaysia (USM) Kota Bharu, Kelantan, Malaysia

12TH ISSEP 2025

THE 12TH INTERNATIONAL SEMINAR ON SPORTS AND EXERCISE PSYCHOLOGY 2025

CONFERENCE PROCEEDING

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Ayu Suzailiana Muhamad
Ning Qian,
Liu Zhutang

With Collaboration

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Contents

Welcome Message

Associate Professor Dr Garry Kuan
Conference Chairperson of 12th ISSEP 2025
Secretary-General of Asian-South Pacific Association of Sport Psychology

Dear Distinguished Guests, Ladies and Gentlemen,

On behalf of the Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, it is both a great honour and a pleasure to welcome you to the 12th International Seminar in Sport and Exercise Psychology (ISSEP 2025).

We extend our heartfelt appreciation to all of our esteemed guests and participants. Your presence and unwavering support are the driving forces behind the successful realisation of ISSEP 2025, a conference dedicated to advancing the field of sport and exercise psychology. This year, we gather participants from Korea, Thailand, Taiwan, Indonesia, China, and Malaysia, among others, signifying that ISSEP 2025 is more than just an international academic event; it represents a pivotal milestone in our ongoing mission to foster academic discourse and collaboration within the Asian-South Pacific region.

The ISSEP has continuously served as a vital platform for interaction among world-renowned experts in sport and exercise psychology. This year, under the theme of "Innovation and Technological Advancement in International Sport and Exercise Psychology," we have curated a stimulating program that includes multiple thematic lecture sessions, captivating keynote speeches, and engaging invited talks. These sessions aim to provide new insights and innovative knowledge on a wide array of relevant topics, thus enriching our understanding and practice in this dynamic field.

Thanks to your outstanding support, this international event has garnered over 130 submissions and registrations from 9 countries, drawing more than 200 diverse attendees. We are particularly proud to welcome new representatives from Indonesia and China as they join us in sharing their valuable perspectives and research. Your participation is eagerly anticipated and holds paramount importance in ensuring the success of this conference.

As you explore Kota Bharu, Kelantan, we trust that your experience will be enriched by the stunning traditional culture, vibrant arts, and the warm hospitality that our local community has to offer. We hope that both the academic exchanges and the cultural experiences will leave a lasting impression.

Once again, welcome to Kota Bharu, Kelantan. I wish you a wonderful and enriching ISSEP 2025 experience!

Thank you.

Garry Kuan

ASSOC. PROF. DR. GARRY KUAN
Conference Chairperson of 12th ISSEP 2025
Secretary-General of Asian-South Pacific Association of Sport Psychology (ASPASP)

Professor Dr. Shaiful Bahari Ismail
Health Campus Director, USM
Conference Patron of 12th ISSEP 2025

Greetings to our esteemed guests and attendees of the 12th International Seminar on Sports and Exercise Psychology.

It is with great pleasure that I welcome you to Health Campus. I trust that your time with us will be both enriching and memorable.

This year's seminar theme, "Innovation and Technological Advancement in International Sport and Exercise Psychology," invites us to explore how technology can transform mental and behavioural performance. In today's rapid changing environment, these innovations not only foster behavioural change and resilience but also intensity the dialogue surrounding authenticity versus artificial intelligence (AI), challenging our cognitive capacities. As we continue to emphasize mental health through psychological sciences and training. I commend the organisers for addressing these critical developments.

We are fortunate to have 17 esteemed speakers from six (6) countries: South Korea, Thailand, Taiwan, China, Indonesia, and of course, Malaysia. This event will not only showcase the latest scientific advancements but will also promote valuable collaborations and academic exchanges for the future.

I would like to extend a special welcome attendees to our guests from the institutions involved in Memorandum of Agreement with us, including Seoul National University of Science and Technology (South Korea), Sekolah Tinggi Olahraga dan Kesehatan Bina Guna (Indonesia), and Burapha University (Thailand). I hope this seminar serves as a catalyst for meaningful partnerships in the field of sports and exercise psychology.

I encourage all participants to actively engage and creating network throughout the event, aiming to connect with colleagues from each represented country. Remember, the learning experience extends beyond lectures, the connections we forge here will deepen our collective understanding.

Finally, I would like to congratulate to the organizing committee for their excellent work, and I wish you all a fruitful and enjoyable event.

Thank you.

Warm regards,

Shaiful Bahari Ismail

PROFESSOR DR. SYAIFUL BAHARI ISMAIL
Health Campus Director,
Universiti Sains Malaysia

Professor Dr. Wan Rosli Wan Ishak
Dean, School of Health Sciences, USM
Conference Advisor of 12th ISSEP 2025

Dear Participants of the 12th International Seminar in Sport and Exercise Psychology,

As the Dean of the School of Health Sciences, it is with great pleasure that I welcome you to the 12th International Seminar in Sport and Exercise Psychology. I wish to express my heartfelt gratitude to each one of you for your invaluable contributions and participations. Your unwavering dedication and scholarly insights have played a pivotal role in making this seminar an exceptional event, fostering meaningful exchanges of professional knowledge among peers.

This seminar stands as a remarkable achievement of international collaboration, drawing the attention of esteemed researchers and professionals from around the globe. It sheds light on critical issues within sport psychology from a comprehensive global perspective. Through our engaging discussions, we aspire to address pressing challenges, explore innovative possibilities, and push the boundaries of advancements in sports and exercise psychology.

I would like to take this opportunity to commend Assoc. Prof. Dr. Garry Kuan, the Conference Chairperson and Associate Professor at the Exercise and Sports Science Programme, School of Health Sciences. His commitment and meticulous efforts in organising this prestigious academic event have been instrumental to its success.

On behalf of Universiti Sains Malaysia, I would like to extend my sincere appreciation to all participants for turning this international seminar into a monumental celebration of scholarly excellence. Together, let us unite our endeavours to further nurture and advance the fields of sports, exercise, and academic development.

As we embark on this journey of learning, collaboration, and inspiration, I encourage you to engage fully, share your insights, and make lasting connections with fellow participants. May this seminar pave the way for new ideas, partnerships, and transformative contributions to our field.

Thank you once again for being here, and I wish you all a productive and fulfilling seminar.

Warm regards,

Wan Rosli Wan Ishak

PROF. DR. WAN ROSLI WAN ISHAK
Dean, School of Health Sciences
Universiti Sains Malaysia

Synopsis of the Conference

The 12th International Seminar on Sports and Exercise Psychology (ISSEP) 2025 has a unique objective: to reinforce the collaboration established through the Memorandum of Agreement (MOA) between the School of Health Sciences at Universiti Sains Malaysia and esteemed institutions, which include: 1) the College of Sport Science at Burapha University, Chomburi, Thailand; 2) the Department of Sport Science at Seoul National University of Science and Technology, Seoul, South Korea; and 3) Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Medan, Indonesia.

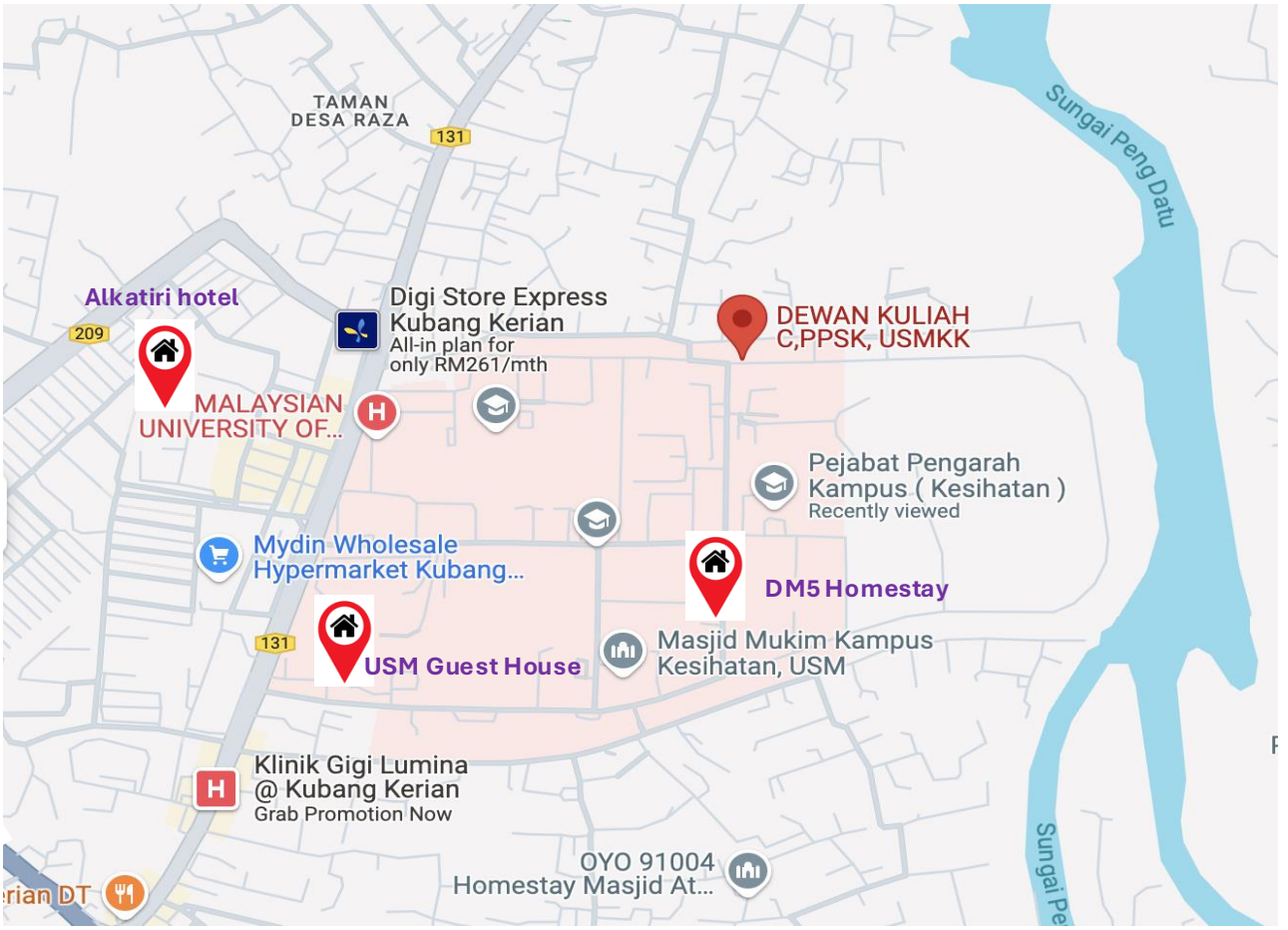
This seminar serves as an important platform for the congregation of academicians, researchers, coaches, trainers, physical education lecturers and teachers, fitness instructors, and experts in the fields of sports and exercise science and psychology. Participants will engage in knowledge-sharing and discussions across various sub-disciplines of exercise and sports science, emphasizing the pivotal role of sport and exercise psychology in enhancing health, fitness, and athletic performance.

In light of the ongoing challenges posed by the global COVID-19 pandemic, which has adversely impacted participation in physical activity, the seminar will address the urgent need to promote physical activity as a countermeasure against the rising prevalence of non-communicable diseases associated with inactivity. The event will feature evidence-based discussions on mechanisms to encourage physical activity and exercise, particularly in vulnerable populations.

Moreover, the conference will delve into critical topics concerning high-performance sports, coaching methodologies, and effective training practices. By providing this comprehensive forum, the 12th ISSEP will allow sports and exercise scientists, enthusiasts, and practitioners from Malaysia and around the world to evaluate current challenges and developments within the field.

Attendees will also have the opportunity to explore potential collaborative research initiatives and engage in knowledge exchange in the dynamic area of sports and exercise sciences. Through this seminar, we aspire to foster innovation and technological advancements that can significantly impact the future of sport and exercise psychology.

Campus MAP



Accommodation (Students)

a) DM5 Homestay – 90 m to DKC
b) USM Guest House – 160 m to DKC
c) Alkatiri Hotel – 200 m to DKC
Address: 1312, Jalan KK 5/1, Kubang Kerian, 15200 Kota Bharu, Kelantan, Malaysia

Accommodation (Professors/Doctors)

Address: Grand Renai Hotel Kota Bharu - Jalan Sultan Yahya Petra, Kota Sri Mutiara, 15150 Kota Bharu, Kelantan, Malaysia

Conference Dinner

Address: Grand Riverview Hotel - 151, Jalan Post Office Lama, Bandar Kota Bharu, 15000 Kota Bharu, Kelantan

ISSEP Recognition

Former Sites of the ISSEP Conferences

2025 Kelantan, Malaysia
2024 Taipei, Taiwan
2023 Chonburi, Thailand
2022 Kuching, Malaysia
2021 Seoul, South Korea
2020 Tainan, Taiwan
2019 Chonburi, Thailand
2018 Kuching, Malaysia
2017 Seoul, South Korea
2016 Taichung, Taiwan
2015 Chonburi, Thailand
2014 Chonburi, Thailand

Former Conference President

2025 Garry Kuan
2024 Yu-Kai Chang
2023 Naruepon Vongjaturapat
2022 Ngien Siong Chin
2021 Youngho Kim
2020 Frank Jing-Horng Lu
2019 Naruepon Vongjaturapat
2018 Ngien Siong Chin
2017 Youngho Kim
2016 Frank Jing-Horng Lu
2015 Naruepon Vongjaturapat
2014 Naruepon Vongjaturapat

Organising Committees

The 12th International Seminar in Sports and Exercise Psychology (ISSEP 2025)

Patron
Ybhg. Dato' Prof. Dr. Abdul Rahman bin Mohamed, FASc. Vice Chancellor of Universiti Sains Malaysia
Ybhg. Prof. Dr. Shaiful Bahari Ismail, Health Campus Director of Universiti Sains Malaysia

Advisor
Prof. Dr Wan Rosli Wan Ishak (Dean, PPSK)

Chairperson
Assoc. Prof. Dr Garry Kuan Pei Ern

Vice-Chairperson
Dr. Ayu Suzailiana Muhamad

Secretary General
Dr Marilyn Ong Li Yin

Asst. Secretary General
Mrs. Nur Fadhilah Ain Md Adnan

Treasurer
Dr. Rosniwati Ghafar

Secretariat
Mr. Nurul Azuar Hamzah
Mrs. Nur Fadhilah Ain Md Adnan
Mrs. Norlida Azalan @ Zed
Mr. Shamsurizan Kashmar Bin Mohamed

Scientific Committee
Assoc. Prof. Dr. Garry Kuan
Dr. Ayu Suzailiana Muhamad
Assoc. Prof. Dr. Mohd Nidzam Jawis
Mr. Erie Zuraidee Zulkifli

Preparatory
Assoc. Prof. Dr. Mohd Nidzam Jawis
Mr. Erie Zuraidee Zulkifli
Mr. Tuan Mansor Bin Raja Omar (Ko-k)
Representatives from the MPRC USM
Mr. Nawawi Yasin
Mr. Nurul Azuar Hamzah
Mr. Norbasudi Bin Muhamad Nor (Ko-K)

Asian-South Pacific Association of Sport Psychology (ASPASP)

President
Youngho Kim (Korea)

Vice President
Maria Adviento (Philippines)
Nadhim Al-Wattar (Iraq)
Yu-Kai Chang (Taiwan)

Secretary-General
Garry Kuan (Malaysia)

Treasurer
Naruepon Vongjaturapat (Thailand)

Managing Council (MCs)
Tawfeeq Albakry (Saudi Arabia)
San-Fu Kao (Taiwan)
Jolly Roy (India)
John Wang (Singapore)
Ngien Siong Chin (Malaysia)
Jingdong Liu (China)
Yasuhisa Tachiya (Japan)

Postgraduate Students Committees

The 12th International Seminar on Sports and Exercise Psychology (ISSEP 2025)

Candrawati Binti Ibrahim
Chi Fui Peng
Dhirveenraj A/L Raj Kumar
Duan Weipeng
Elvis Anak Mehid
Han Xu
Hannah Fam Lee Ping
Li Lingsong
Li Shen
Liao Qiwei
Lim Chee Shan
Liu Linghong
Liu Zhutang
Lu Jinyu
Lydia Wong Juan Ye
Ning Qian
Owi Shie Lee
Pan Mingtzu
Pang Longyue
Qiao Beibei
Shen Guowei
Ting Tion Shu
Wong Siew Kin
Yin Liang
Yu Xiaoqian
Zhang Haiyan
Zhang Linran
Zhang Xinyi
Zhou Yali

Conference Information

Overview

Title 12th International Seminar on Sports and Exercise Psychology (ISSEP 2025)
Date January 19 (Sunday) to January 22 (Wednesday)
Venue DKC, School of Health Sciences, Universiti Sains Malaysia
Theme Innovation and Technological Advancement in International Sport and Exercise Psychology
Official Language English

Organiser

Universiti Sains Malaysia (USM)

Exercise and Sports Science Programme, School of Health Sciences, USM

Co-organisers

Sarawak Sports Psychology Association (SASPA)

Institute of Teacher Education Batu Lintang Campus

Asian-South Pacific Association of Sport Psychology (ASPASP)

Collaborators

Seoul National University of Science & Technology (Korea)

Burapha University (Thailand)

Sekolah Tinggi Olahraga dan Kesehatan Bina Guna (Indonesia)

National Taiwan Normal University (Taiwan)

Chinese Culture University (Taiwan)

Guangzhou University (China)

Chonnam National University (Korea)

Jeonbuk National University (Korea)

Sports Authority of Thailand

Lions Club of Kota Bharu Host, Kelantan

Sponsors

Official & Social Programmes

Workshop & Visitation to ESS Laboratories

January 19 (Sun) 14:00 – 16.00

DKC, School of Health Sciences, Universiti Sains Malaysia (USM)

Opening Ceremony

January 20 (Mon) 09:30 – 10.00

DKC, School of Health Sciences, Universiti Sains Malaysia (USM)

Conference Tour

January 21 (Tue) 10:30 – 16.00

10.00 Gathering @ DKC, School of Health Sciences, (USM)

Depart

- Traditional Batik Zecsman Design
- Batik Museum
- Siti Khadijah Big Market
- War Museum
- Lunch – Nasi Ulam

Conference Dinner

January 21 (Tue) 19:30 – 22.00

Ballroom 1, Grand Riverview Hotel

Address: 151, Jalan Post Office Lama, Bandar Kota Bharu, 15000 Kota Bharu, Kelantan

Cultural Performance & Closing Ceremony

January 22 (Wed) 11:00 – 12.00

DKC, School of Health Sciences, Universiti Sains Malaysia (USM)

Invited Sessions
Keynotes Speech

Keynote Speech 1
January 20 (Mon) 10:00-10.30
Doping in Sports: International Actions & Psychosocial Understanding of Athletes' Doping
Prof. Dr. Youngho Kim (Korea)

Keynote Speech 2
January 20 (Mon) 10:30-11.00
Athletic Mental Energy: Concept Development, Measurement, Empirical Studies, and Updates
Prof. Dr. Frank Jing-Horng Lu (Taiwan)

Keynote Speech 3
January 21 (Tue) 9:00-9.30
The Diverse Challenges and Motivations of Thai Olympians and Paralympians: The unique journeys to Elite Competition
Assit. Prof. Dr. Naruepon Vongjaturapat (Thailand)

Keynote Speech 4
January 21 (Tue) 9:30-10.00
The Needs Satisfaction, Thwarting And Motivation among Badminton Coaches
Dr. Chin Ngien Siong (Malaysia)

Keynote Speech 5
January 22 (Wed) 10:10-10.40
Mindfulness: A Novel PST Approach to Enhance Athletes' Mental Health and Performance—Empirical Insights
Prof. Dr. Yu-Kai Chang (Taiwan)

Invited Sessions
Invited Speech

Invited Speech 1
January 20 (Mon) 11:20-11.40
Current psychological techniques to manage psychological skills in athletes
Assoc. Prof. Dr Saengreol Park (Korea)

Invited Speech 2
January 20 (Mon) 11:40-12.00
Thinking Like a Scientist: Addressing Statistical and Sample Size Challenges in Sports Research
Associate Professor Dr. Kueh Yee Cheng (Malaysia)

Invited Speech 3
January 20 (Mon) 12:00-12.20
The Role of Artificial Intelligence in Managing Athlete Anxiety
Dr. Alan Alfiansyah Putra Karo Karo (Indonesia)

Invited Speech 4
January 20 (Mon) 15:30-15.50
Cumulative Ecological Risk, Exercise Environment, and Self-Control: Pathways to Physical Activity in College Students
Assoc. Prof. Dr Yao Liying (China)

Invited Speech 5
January 20 (Mon) 15:50-16.10
Addressing the "Beast in the Gym, Weak in the Game" Phenomenon: Best Practices in Sport Psychological Skill Protocol
Assoc. Professor Dr. Chatkamon Singnoy (Thailand)

Invited Sessions
Invited Speech

Invited Speech 6
January 20 (Mon) 16:10-16.30
The Significance of Technological Advancements in Enhancing Mental Training for Athletes
Dr. Sarawut Kusump (Thailand)

Invited Speech 7
January 22 (Wed) 09:00-09.20
More Better Online Psychological Assessments and Counselling of Youth Football Athletes in Jeonbuk Hyundai Motors F.C.
Professor Dr. Jin Hwang (Korea)

Invited Speech 8
January 22 (Wed) 09:20-09.40
Effects of Acute Exercise on Executive Functions in Children with Preterm Birth: Insights from Multiple Investigations
Assitant Professor Dr. Feng-Tzu Chen (Taiwan)

Invited Speech 9
January 22 (Wed) 09:40-10.00
Strength in Mind: Enhancing Athletic Performance Through Applied Sports Psychology in Malaysia
Associate Professor Dr. Garry Kuan (Malaysia)

Information for Presenters

Formats

Keynotes

During this year's conference, there will be a total of five keynote presentations. Each keynote speaker is an internationally renowned scientist, hailing from distinct fields within sport and exercise psychology. They will deliver presentations lasting 25 minutes, followed by a 5-minute discussion period open to questions from the audience. Each keynote will be moderated by a designated moderator.

Invited

There will be a total of nine invited speakers, each delivering presentations lasting 15 minutes, followed by a 5-minute discussion period open to questions from the audience. We will invite specialised experts and scholars in the fields of sport psychology, exercise psychology, performance psychology, and motor learning and control to speak on specific topics at the forum.

Oral Presentations

Oral presentations will consist of up to five individual presentations, with each presentation allotted 8 minutes for delivery and 2 minutes for questions. The sessions have been compiled based on individual contributions related to exercise psychology, motor learning and control, performance psychology, and sport psychology. All oral presentations are scheduled for a total of 60 minutes. Session moderators are responsible for time management during the sessions to facilitate transitions between segments. They should also ensure there is sufficient time for questions and discussion with the audience.

Poster Presentations

A poster presentation is a method for scholars to convey their research or understanding of a topic in a brief and succinct format. Presenters should print and display their posters, adhering to the maximum dimensions (for vertical presentation): width 90 cm and height 120 cm. All posters will be exhibited at ISSEP 2025, with each poster assigned a dedicated board for display.

Programme at a Glance

<table>
<tr><td rowspan="2">Time\Day</td><td>Sunday, January 19, 2025</td><td colspan="5">Monday, January 20, 2025</td><td colspan="2">Tuesday, January 21, 2025</td><td>Wednesday, January 22, 2025</td></tr>
<tr><td>DKC, PPSK</td><td>DKC, PPSK</td><td>Room BSA</td><td>Room 1</td><td>Room BSB</td><td>Foyer</td><td>DKC, PPSK</td><td>Room BSA</td><td>DKC, PPSK</td></tr>
<tr><td>09:00-09:30</td><td rowspan="9">Arrival of speakers / guests</td><td colspan="3">08:45-09:30
Registration @ Foyer</td><td></td><td></td><td rowspan="2">Keynote 3 - 4
Naruepon Vongjaturapat
Chin Ngien Siong</td><td rowspan="2"></td><td rowspan="3">Invited 7 - 9
Jin Hwang
Feng-Tzu Chen
Garry Kuan</td></tr>
<tr><td>09:30-10:00</td><td>Opening Ceremony</td><td></td><td></td><td></td><td></td></tr>
<tr><td>10:00-10:10</td><td rowspan="3">Keynote 1 & 2
Youngho Kim
Frank Lu</td><td></td><td></td><td></td><td rowspan="4">Poster 1</td><td></td><td>Oral 7</td></tr>
<tr><td>10:10-11:00</td><td></td><td></td><td></td><td rowspan="4">Conference Tour</td><td>Keynote 5 Yu-Kai Chang</td></tr>
<tr><td>11:00-11:10</td><td></td><td></td><td></td><td rowspan="4">Cultural Performance & Closing Ceremony</td></tr>
<tr><td>11:10-11:20</td><td colspan="3">Break</td><td></td></tr>
<tr><td>11:20-11:30</td><td rowspan="3">Invited 1 - 3
Saengryeol Park
Kueh Yee Cheng
Alan Alfiansyah Putra Karo Karo</td><td></td><td></td><td></td></tr>
<tr><td>11:30-12:00</td><td></td><td></td><td></td></tr>
<tr><td>12:00-12:30</td><td></td><td></td><td></td><td rowspan="12">Speakers / guests departure</td></tr>
<tr><td>12:30-13:30</td><td colspan="5">Lunch @ Room BSC</td><td colspan="2">Lunch @ Nasi Ulam</td></tr>
<tr><td>13:30-14:30</td><td>Registration @ Foyer</td><td></td><td>Oral 1</td><td>Oral 2</td><td>Oral 3</td><td rowspan="6">Poster 2</td><td rowspan="4">Conference Tour</td><td></td></tr>
<tr><td>14:30-15:30</td><td rowspan="2">Workshop Nurul Azuar & Visitation to ESS laboratories</td><td></td><td>Oral 4</td><td>Oral 5</td><td>Oral 6</td><td></td></tr>
<tr><td>15:30-16:30</td><td rowspan="3">Invited 4 - 6
Yao Liying
Chatkanom Singhnoy
Sarawut Kusump</td><td></td><td></td><td></td><td></td></tr>
<tr><td>16:30-17:00</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>17:00-17:30</td><td rowspan="3">Rest and free time</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>17:30-18:30</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>18:30-19:00</td><td colspan="4" rowspan="2">International delegates are invited for dinner together at Makette Restaurant</td><td rowspan="2">Conference Dinner at Grand Riverview Hotel</td><td rowspan="2"></td></tr>
<tr><td>19:00-21:00</td><td></td></tr>
</table>

Tentative Opening Ceremony

ATURCARA MAJLIS PERASMIAN PERSIDANGAN "*12th International Seminar on Sport and Exercise Psychology*"

Programme for the Opening Ceremony of the 12th International Seminar on Sport and Exercise Psychology (ISSEP)

pada 20 Januari 2025

on 20th January 2025

di DKC Pusat Pengajian Sains Kesihatan (PPSK), Universiti Sains Malaysia

in DKC School of Health Sciences, Universiti Sains Malaysia.

9.15 pg/am-	**Ketibaan dif-dif kehormat** ***Arrival of VIPs***
9.30 pg/am-	**Perarakan masuk** ***Entering parade***
-	**Lagu Kebangsaan (Negara Ku) dan Lagu USM (Menara Ilmu)** ***National Anthem (Negaraku) and USM Song (Menara Ilmu)***
-	**Persembahan Tarian Pembukaan – Pelajar-pelajar dari PPSK** ***Welcoming Dance Performance – Students from PPSK***
-	**Ucapan Aluan oleh Pengerusi Jawatankuasa Penganjur Persidangan** ***Welcoming speech by Chairman of the Organising Committee***
-	**Tayangan Multimedia** ***Multi-media Presentation***
-	**Ucapan Aluan dan Perasmian Pembukaan oleh Pengarah Kampus Kesihatan, USM** ***Welcoming speech and Official Opening by Director of Health Campus, USM***
-	**Penyampaian Cenderahati** ***Souvenir Presentation***
-	**Sesi Fotografi bersama para peserta dan jawatankuasa penganjur** ***Photography session for the participants and organising committee members***
10.00 pg/am-	**Minum Pagi** ***Tea and Refreshment***

Tentative Closing Ceremony

ATURCARA MAJLIS PENUTUPAN PERSIDANGAN "12th International Seminar on Sport and Exercise Psychology"

Programme for the Closing Ceremony of the 12th International Seminar on Sport and Exercise Psychology (ISSEP)

pada 22 Januari 2025

on 22th January 2025

di DKC Pusat Pengajian Sains Kesihatan (PPSK), Universiti Sains Malaysia

in DKC School of Health Sciences, Universiti Sains Malaysia.

11.00 pg/am -	**Ketibaan dif-dif kehormat** ***Arrival of VIPs***
-	**Ucapan oleh Y. Brs. Pengerusi Jawatankuasa Penganjur Persidangan** ***Speech by Y. Brs. Chairman of the Conference Organising Committee***
-	**Ucapan Penutup dari Y.Bhg Dekan Pusat Pengajian Sains Kesihatan, USM** ***Closing speech by Y. Bhg. Dean of School of Health Sciences, USM***
-	**Persembahan Kebudayaan – Pelajar-pelajar dari PPSK** ***Cultural Performance – Students from PPSK***
-	**Penyampaian Cenderahati** ***Souvenir Presentation***
12.00 ptg/noon -	**Bersurai** ***Disperse***

Daily Programme

Sunday, January 19, 2024	
Workshop	
Date: Jan. 19 | Time: 14:30	
Room: DKC, School of Health Sciences, USM	
Chairperson:	Mr. Erie Zuraidee
WS1	**Beat to Your Workout** Mr. Nurul Azuar Hamzah Exercise and Sports Science Programme, School of Health Sciences Universiti Sains Malaysia, Kelantan, Malaysia

Monday, January 20, 2024	
Opening Ceremony	
Date: Jan. 20 | Time: 09:30 – 10:00	
Room: DKC, School of Health Sciences, USM	

Monday, January 20, 2024			
Keynote Speech			
Date: Jan. 20 | Time: 10:00 – 11:10			
Room: DKC, School of Health Sciences, USM			
Chairperson	Assoc. Prof. Dr. Garry Kuan	Co-Chairperson	Liu Zhutang
KS1	**Doping in Sports: International Actions & Psychosocial Understanding of Athletes' Doping** Prof. Dr. Youngho Kim Department of Sport Science, Seoul National University of Science and Technology		
KS2	**Athletic Mental Energy: Concept Development, Measurement, Empirical Studies, and Updates** Prof. Dr. Frank Jing-Horng Lu Department of Physical Education, College of Health and Kinesiology, Chinese Culture University, Taiwan		

Invited Speech 1–3

Date: Jan. 20 | Time: 11:20–12:30

Room: DKC, School of Health Sciences, USM

Chairperson	Professor Dr Frank Jing-Horng Lu	Co-Chairperson	Pan Mingtzu

IS1	**Current psychological techniques to manage psychological skills in athletes:** Assoc. Prof. Dr Saengreol Park Department of Physical Education, College of Education, Chonnam National University
IS2	**Thinking Like a Scientist: Addressing Statistical and Sample Size Challenges in Sports Research:** Assoc. Prof. Dr. Kueh Yee Cheng School of Medical Sciences,Universiti Sains Malaysia, Malaysia
IS3	**The Role of Artificial Intelligence in Managing Athlete Anxiety:** Dr. Alan Alfiansyah Putra Karo Karo Physical Education Study Program, Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Indonesia

Lunch @ Room BSC

Oral Presentation 1

Date: Jan. 20 | Time: 13:30–14:30

Room: Room BS1

Chairperson	Assoc. Prof. Dr Saengreol Park	Co-Chairperson	Yin Liang

O 1-1	**Linear Relationship of Transtheoretical Model and Physical Activity and Leisure Motivation Scale with Amount of Physical Activity among Universiti Malaysia Sabah Employees** Aizuddin Hidrus[1], Yee Cheng Kueh[2] ,Garry Kuan[2] , Syed Sharizman Syed Abdul Rahim[1*] Mohammad Saffree Jeffree[1] ,Abdul Rahman Ramdzan[1] [1] Department of Public Health Medicine, Faculty of Medicine and Health Sciences, Universiti Malaysia Sabah [2] Unit of Biostatistics and Research Methodology, School of Medical Sciences, Universiti Sains Malaysia
O 1-2	**Exploring Mindfulness, Happiness and Mental Health among Teacher Trainees** Alessandra Senan Henry Lalet[1], Wong Chang Kai[1] & Chin Ngien Siong[1] [1] Institute of Teacher Education Malaysia Batu Lintang Campus , Kuching, Sarawak, Malaysia
O 1-3	**The Effect of Acute Table Tennis Intervention with Different Cognitive Load in Children with Attention Deficit Hyperactivity Disorder (ADHD)** Zhang, W. [1], Fong, D.Y.[2], Hung, C. L.[1、3*] [1] Department of Athletic, National Taiwan University, Taiwan [2] Physical Education Office, National Taipei University of Technology, Taiwan [3] The Master Program of Sport Facility and Health Promotion, NTU, Taiwan
O 1-4	**Psychological Performance and Behavioural Patterns among Sarawak Sukma Athetes** Chong Siew Kian[1] & Chin Ngien Siong[2] [1]University of Malaysia Sarawak, Sarawak, Malaysia [2]Institute of Teacher Education Malaysia Batu Lintang Campu Sarawak, Malaysia

Oral Presentation 1	
Date: Jan. 20 | Time: 13:30–16:50	
Room: Room BS1	
Chairperson	Assoc. Prof. Dr Saengreol Park Co-Chairperson Yin Liang
O 1-5	**Effect of Different Intensities of Acute Exercise Combined with Caffeine on Executive Function and Mood in Young Adult** Chueh-Yin Chen, Yun-Hsin Hsueh, Chen-Sin Hung, Yu-Kai Chang* Department of Physical Education and Sport Sciences, National Taiwan Normal University, Taipei, Taiwan
Oral Presentation 2	
Date: Jan. 20 | Time: 13:30–14:30	
Room: Room BS2	
Chairperson	Assoc. Prof. Dr Kueh Yee Cheng Co-Chairperson Qiao Beibei
O 2-1	**Undergraduate-athletes' Motivation and Identity in Academics and Sports** Clarriechel Walter Lakun[1], Teo Boon Sian[2], Malisa Haziqah Binti Mohammad Haffizie[3], Michelle Melini Ak Walter[4] & Candrawati Binti Ibrahim Department of Physical Education and Health, Institute of Teacher Education Batu Lintang Campus, Kuching, Sarawak, Malaysia
O 2-2	**The Relationship Between Motivations for Using YouTube Sports Content, Intention to Use, Technology Acceptance and Sports Participation Among Adults in Their 20s** Donghee Kang, Woojin Kim, Junhong Oh & Youngho Kim* Department of Sport Science, Seoul National University of Science and Technology, Seoul, Republic of Korea
O 2-3	**Validation of the Korean Athlete Doping Behavior Scale (ADBS-K) for use in Sport Contexts: A Test of the Sport Drug Control Model** Dojin An, Soojin Kang, & Youngho Kim* Department of Sport Science, Seoul National University of Science and Technology, Seoul, Republic of Korea
O 2-4	**Review of Literature Based on Bibliometric and Visualization Analysis of Research Trends in Music in Sport Applications** Weipeng Duan, Li Zhang, Garry Kuan[1], Yee Cheng Kueh[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] School of Medical Sciences, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
O 2-5	**The Influence of Music on Athletic Performance: A Systematic Review** Elvis Mehid[1], Garry Kuan[1], Chin Ngien Siong[2] [1] Exercise & Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia [2]Institute of Teacher Education Batu Lintang Campus, Kuching, Sarawak Malaysia

Oral Presentation 3

Date: Jan. 20 | Time: 13:30–14:30

Room: Room BS3

Chairperson	Dr. Alfiansyah Putra Karo Karo Co-Chairperson Yu Xiaoqian
O 3-1	**The Effect of Traditional Game of TUG of WAR on ARM and LEG muscle Strength in Students with Low Vision Disabilities at Yapetra SLB** Devi Catur Winata[1*], Fathir Suhada[2] [1,2] Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Medan, Sumatera Utara, Indonesia
O 3-2	**Training of Young Volleyball Players in Henan Province Based on the LTAD Model:** Han Xu[1*], Garry Kuan[1], Zhou Ke[2], Kueh Yee Cheng[3] [1] School of Health Sciences, Universiti Sains Malaysia Health Campus, 16150 Kota Bharu, Kelantan, Malaysia [2] School of Physical Education, Henan University, 475001 Kaifeng, Henan, China [3] School of Medical Sciences, Universiti Sains Malaysia Health Campus, 16150 Kota Bharu, Kelantan, Malaysia
O 3-3	**Validity and Reliability of the Chinese Version of the Pictorial Scale of Perceived Movement Skill Competence for Young Children (PMSC)** Zhang Haiyan[1,2] , Kueh Yee Cheng [3] , Luo Yi [4] , Garry Kuan[1*] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150, Kubang Kerian, Kelantan, Malaysia [2] Institute of Physical Education, Guangzhou Huali College, 511325, Guangzhou, China [3]Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150, Kubang Kerian, Kelantan, Malaysia [4]School of Sports Arts, Guangzhou Sport University, 510630, Guangzhou, China
O 3-4	**The Effect of Listening to music with Different Tempos on Muscle Strength and Endurance During Weight Training** Wannee Jermsuravong[1*], Phongsakorn Mekmai[1] Peerasilp Charat[1] Phuriphat Klomphan[1] and Kunat Pithapornchaikul[1] Silpakorn University, Nakorn-Pathom, Thailand
O 3-5	**Breaking the Barrier: Exercise Preferences and Motivational Factors in Stressed Chinese Secondary School Students** Li Hao[1], Arimi Fitri Mat Ludin[2*] Jiang Yu[3], Mahadir Ahmad[4] [1]Center for Healthy Ageing and Wellness (HCARE), Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia; [2] Physical Education Department, Nanjing Xiao Zhuang College, Nanjing, China [3]Center for Community Health Studies (ReaCH), Faculty of Health [4]Sciences, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia;

Oral Presentation 4			
Date: Jan. 20 | Time: 14:30–15:30			
Room: Room BS1			
Chairperson	Dr Chin Ngien Siong	Co-Chairperson	Ning Qian
O 4-1	**Music in Rhythmic Gymnastics: A Literature Review** Lydia Wong Juan Ye[1*], Garry Kuan[1], Chin Ngien Siong[2] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia [2]Department of Physical Education and Health, Institute of Teacher Education Batu Lintang Campus, Kuching, Sarawak, Malaysia		
O 4-2	**Trainee Teacher's Perceptions of Anxiety and Benefits during Teaching Practicum** Michelle Melini Walter, Clarriechel Walter Lakun, Malisa Haziqah Binti Mohammad Haffizie, Teo Boon Sian, Candrawati Binti Ibrahim & Wahed Bin Bujang Institute of Teacher Education Malaysia Batu Lintang Campus, Kuching, Sarawak Malaysia		
O 4-3	**Trainee Teacher's Perceptions of Anxiety and Benefits during Teaching Practicum** Michelle Melini Walter , Clarriechel Walter Lakun, Malisa Haziqah Binti Mohammad Haffizie, Teo Boon Sian, Candrawati Binti Ibrahim & Wahed Bin Bujang [1]Institute of Teacher Education Malaysia Batu Lintang Campus Kuching, Sarawak Malaysia		
O 4-4	**The Impact of TGFU on Motivation for 14 Years old Students During Training Through MINI Handball Games** Nguang Ung Siong Institute of Teacher Education Malaysia Tun Abdul Razak Campus		
O 4-5	**A Systematic Review of Artificial Intelligence theoretical basis in Sports** Zhutang Liu[1,2], Linran Zhang[1], Garry Kuan [1] & Yee Cheng Kueh[3] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] School of Physical Education, Henan University, Zheng Zhou, Henan, China. [3] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.		

Oral Presentation 5			
Date: Jan. 20 | Time: 14:30–15:30			
Room: Room BS2			
Chairperson	Professor Dr Jin Hwang	Co-Chairperson	Liu Linghong
O 5-1	**A Confirmatory Study of the Chinese Version of the Compulsive Exercise Test Among Chinese Amateur Endurance Athletes** Qiao Beibei.*[1], Garry Kuan.[2], Yee Cheng Kueh[3] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [3] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.		
O 5-2	**Physical Activities' Programmes on Health Status among Urban Elder Adulds** Tan Chee Hian,Tan Hui Yin,Ler Hui Yin,Chan Kai Quin Department of Sport Science, Faculty of Applied Sciences, Tunku Abdul Rahman University of Management and Technology, Setapak, Kuala Lumpur		
O 5-3	**Cultural Factors in Body Dissatisfaction among Female University Students: Beyond Weight- Centered Body Image** Qian Ning[1*], Garry Kuan[1] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia		
O 5-4	**The Effect of Active Breaks among Undergraduate Students** Teo, B.S.[1],*Chin, N.S.[2] [1]SJK C Chung Hua Undop , 95007 Sri Aman, Sarawak [2]Department of Physical Education and Health, Institute of Teacher Education, Batu Lintang Campus, 93200 Kuching, Sarawak, Malaysia		
O 5-5	**Comparing the Effects of Low-Intensity Slow Movement and Tonic Force Generation and Moderate-Intensity Resistance Exercise on Cognitive Flexibility in Older Adults: A Research Proposal** Shang-Chieh Wang*, Ying-Chi Huang, Feng-Tzu Chen Department of Kinesiology, National Tsing Hua University, Hsinchu, Taiwan		

Oral Presentation 6	
Date: Jan. 20 | Time: 14:30–15:30	
Room: Room BS3	
Chairperson	Assoc. Professor Dr. Chatkamon Singnoy Co-Chairperson Zhang Haiyan
O 6-1	**Psychometric Properties of the 10-item Athletic Mental Energy Scale (AMEs-10): Examination of Construct Validity, Reliabilities, Gender and Cross-Cultural Invariance** Wei-Jiun Shen Qwi[1,2,] Frank J. H. Lu[1*], Liwei Zhang[3], Garry Kuan[4], Chatkamon Singnoy [5] & Diane L. Gill [6] [1] Chinese Culture University, Taipei Taiwan [2] National Taiwan Sport University, Tauyuan, Taiwan [3] Beijing Sport University, Beijing, China [4] Universiti Sains Malaysia, Kelantan, Malaysia [5] Burapha University, Saen Suk, Thailand [6] University of North Carolina at Greensboro, NC, USA
O 6-2	**The Effects of Volume-Matched Acute Resistance Exercise on Planning-Related Executive Function in Older Adults** Ting-Ting Wu*, Feng-Tzu Chen Department of Kinesiology, National Tsing Hua University, Hsinchu, Taiwan
O 6-3	**The Innovative Multi-Teaching design: The impact of "optimism" and "senior sports service field" on college students' problem-solving attitudes:** Ya-Wen Liu[1*] Frank Jing-Horng Lu [2]Shih-Yun Huang [3]Li, Jia-Jen [4] [1]National Taipei University of Business, Physical Education Office [2]Department of Physical Education / Chinese Culture University [3]National Taipei University of Business, Department of Accounting Information [4]National Taipei University of Business, Department of Business Administration
O 6-4	**Bibliometric Analysis of Sport Psychology in Athletes Using CiteSpace and VOSviewer: Evolution, Trends, and Hotspots** Yu Xiaoqian[1*], Garry Kuan[1], & Yee Cheng Kueh[2] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2]Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
O 6-5	**The Impact of Student Athletes' Psychological Skills on Sports Coping and Failure Attribution** Park, Y.J.[1*], Hwang, J.[2], Ahn, J.W.[3], Shin, Y.J.[4], Park, B.H.[5] [1*]Jeonbuk National University, Jeonju, South Korea

Invited Speech 4–6	
Date: Jan. 20 | Time: 15:30–16:30	
Room: DKC, School of Health Sciences, USM	
Chairperson	Asst. Prof. Dr. Naruepon Vongjaturapat Co-Chairperson Hannah Fam Lee Ping
IS4	**Cumulative Ecological Risk, Exercise Environment, and Self-Control: Pathways to Physical Activity in College Students:** Assoc. Prof. Dr. Liying Yao School of Physical Education, Guangzhou University, Guangdong Guangzhou, 510006, PR China
IS5	**Addressing the "Beast in the Gym, Weak in the Game" Phenomenon: Best Practices in Sport Psychological Skill Protocol** Assot. Prof. Dr. Chatkamon Singnoy Faculty of Sport Science, Burapha University, Sport Psychologist, Sport Authority of Thailand
IS6	**The Significance of Technological Advancements in Enhancing Mental Training for Athletes** Dr. Sarawut Kusump Regional Sports Science Section, Sport Authority of Thailand Region 3 Center, Nakhonratchasima, Thailand Executive Committees, Thailand Applied Sport Psychology Association (TASPA)

DAY 2 Adjourn (International Delegates are Invited for Dinner Together)

Tuesday, January 21, 2024	
Keynote	
Date: Jan. 21 | Time: 09:00 – 10:10	
Room: DKC, School of Health Sciences, USM	
Chairperson	Prof. Dr. Youngho Kim Co-Chairperson Elvis Anak Mehid
KS3	**The Diverse Challenges and Motivations of Thai Olympians and Paralympians: The Unique Journeys to Elite Competition** Assit. Prof. Dr. Naruepon Vongjaturapat Faculty of Sport Science, Burapha University, Thailand
KS4	**The Needs Satisfaction, Thwarting And Motivation among Badminton Coaches** Dr. Chin Ngien Siong Department of Physical Education and Health, Institute of Teacher Education Malaysia Batu Lintang Campus, Kuching, Sarawak, Malaysia

Oral Presentation 7			
Date: Jan. 22 | Time: 10:00–10:10			
Room: DKC, PPSK			
Chairperson	Assoc. Prof. Dr. Yao Liying	Co-Chairperson	Liao Qiwei
O 7-1	Evaluating the Impact of a 4-Month SPARISK Aquatic Therapy Intervention on Postural Alignment and Autism-Related Developmental Challenges in Severe Kyphosis: Jazredal Aboo Bakar[1],Thariq Khan Azizuddin Khan[2] Faculty of Sports Science and Coaching, Sultan Idris Education University, 35900 Tanjung Malim, Perak, Malaysia / SPARISK Academy Malaysia.		

Conference Tour (All Invited)
(Transportation will be provided for International Delegates only)

Conference Official Dinner at Grand Riverview Hotel

Wednesday, January 22, 2024

Invited Speech 7–9			
Date: Jan. 22 | Time: 09:00–10:10			
Room: DKC,PPSK			
Chairperson	Pan Mingtzu	Co-Chairperson	Candrawati Binti Ibrahim
IS7	**More Better Online Psychological Assessments and Counseling of Youth Football Athletes in Jeonbuk Hyundai Motors F.C** Professor Dr. Jin Hwang Jeonbuk National University, Jeonju, South Korea		
IS8	**Effects of Acute Exercise on Executive Functions in Children with Preterm Birth: Insights from Multiple Investigations:** Assit. Prof. Dr. Feng-Tzu Chen Department of Kinesiology, National Tsing Hua University Executive Director, Society for Sport and Exercise Psychology of Taiwan Assistant Editor, International Journal of Sport and Exercise Psychology Director, Physical Activity and Brain with Mental Health Laboratory		
IS9	**Strength in Mind: Enhancing Athletic Performance Through Applied Sports Psychology in Malaysia** Associate Professor Dr. Garry Kuan Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Malaysia		
Keynote Speech 5			
KS5	**Mindfulness: A Novel PST Approach to Enhance Athletes' Mental Health and Performance—Empirical Insights** Professor Dr. Yu-Kai Chang		

Cultural Performance & Closing Ceremony

Speakers/Guests departure

12TH ISSEP
January 2025
KELANTAN

Poster Presentation Schedules

Poster Presentation (Session 1)			
Date: Jan. 20| Time: 10:00 – 13:00			
Room: Foyer			
Chairperson	Dr. Feng-Tzu Chen	Co-chairperson:	Li Shen
P1-1	**Effect of Integrated Psychological Skills Training on the Psychological State and Athletic Performance in Adolescent Badminton Players: MBTI Personality as a Moderating Role** Ting-Yu Chao*, Yu-Chih Chen, Chia-Ju Yeh, Feng-Tzu Chen Department of Kinesiology, National Tsing Hua University, Hsinchu, Taiwan		
P1-2	**Psychometric Validation of The Sports Courage Scale Among Chinese Adolescent Football Players** Ying Shuai.[1,2*], Shaoshen Wang. [1,2], Yee Cheng Kueh. [1], Garry Kuan.[3] [1] Biostatistics & Research Methodology Unit, School of Medical Sciences. Universiti Sains Malaysia, Kubang Kerian, 16150, Kelantan, Malaysia [2] School of Sports Management, Shandong Sport University, Shandong Province , China [3] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, 16150, Kelantan, Malaysia		
P1-3	**Research on the Theory and Practice of "Physical, Travel, and Cultural" Integration in the New Development Stage of Hainan Free Trade Port** Chen Xianjun[1,2], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia [2] College of Physical Education, Hainan University, Hainan, China		
P1-4	**The Benefits of Martial Arts-Based Multi-Modal Training on Cognitive Function: A Literature Review** Lee, C.J.[1], Zhang, W.[2], Lin, C.H.[1], Fong, D.Y.[3], Hung, C. L.[1、2*] [1] The Master Program of Sport Facility and Health Promotion, NTU, Taiwan [2] Department of Athletic, National Taiwan University, Taiwan [3] Physical Education Office, National Taipei University of Technology, Taiwan		
P1-5	**The Association Between Physical Activity and Planning-Related Executive Functions in Adolescents with Hearing Impairment** Chiao-Yu Chiang*, Feng-Tzu Chen Department of Kinesiology, National Tsing Hua University, Hsinchu, Taiwan		
P1-6	**Effectiveness of Physical Activity Interventions for Improving Depression and Anxiety: A Systematic Review** Chifui Peng.[*1], Garry Kuan.[1], Yee Cheng Kueh[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.		
P1-7	**Enhancing Professional Competence Through Scoring Rubrics in Adaptive Physical Education** Ruei-Ai Ciou*, Wen-Yi Wang Master's Program of Transition and Leisure Education for Individuals with Disabilities, University of Taipei, Taipei, Taiwan		

P1-8	**Effects of Exercise on Upper Limb Functionality in Breast Cancer Patients: A Review** Cynthia Anne Cornelius[1*] , Garry Kuan[2] , Kok Lian Yee[1*] [1]Department of Sport Science, Tunku Abdul Rahman University of Management and Technology, Malaysia [2]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Malaysia
P1-9	**Investigating the Attention Types and Quality Characteristics of Volleyball Referees in China** Guowei Shen[1], Garry Kuan[1] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia
P1-10	**Transforming Attitude and Behaviour in Physical Activity among Primary School Students in Sarawak** *1,4Hannah Fam Lee Ping, 1Garry Kuan, 2Chin Ngien Siong & 3 Kueh Yee Cheng 1 Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia 2 Department of Physical Education and Health, Institute of Teacher Education Batu Lintang Campus, Kuching, Sarawak, Malaysia 3 Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia 4 Sekolah Kebangsaan Atas Singai, Bau Sarawak, Malaysia
P1-11	**The Benefits of Martial Arts-Based Multi-Modal Training on Cognitive Function: A Literature Review** Lee, C.J.1 , Zhang, W.2 , Lin, C.H. 1 , Fong, D.Y. 3 , Hung, C. L.1、2* 1 The Master Program of Sport Facility and Health Promotion, NTU, Taiwan 2 Department of Athletic, National Taiwan University, Taiwan 3 Physical Education Office, National Taipei University of Technology, Taiwan
P1-12	**Effects of acute psychological stress on heart rate variability in normotensive offspring of hypertensive parents** I-Hua Chu, Connie Wang, Tzu-Cheng Yu Kaohsiung Medical University
P1-13	**Psychosocial and Environmental Correlates of Physical Activity Based on the Social Ecological Model in Community-Dwelling Adults** Jihyeon Ryu.[1*], Dahyun Park.[1], Youngho Kim.[1] [1]Seoul National University of Science and Technology, Department of Sport Science, Seoul
P1-14	**The effect of the K-Gymstar gymnastics program on physical self-concept of elementary school students.** Jung, J.*, Kim, A.R.[1], Park, S.R.[1*] [1]Chonnam National University, South Korea

P1-15	**Effects of Physical Activity on Cognitive Function in People with Mild Cognitive Impairment: a Meta-Analysis of Randomized Controlled trials** Jonghwa Lee.[1*], Dojin An.[1], Youngho Kim.[1] [1]Seoul National University of Science and Technology, Department of Sport Science, Seoul
P1-16	**Effects of Environmental Differences on EEG and Mood States during Bicycle Exercise*** Lee, J.H. [1], An, D.J. [1], & Kim, Y.H. [1*] [*1]Department of Sport Science, Seoul National University of Science and Technology, Seoul, Republic of Korea
P1-17	**The Influence of Peer Support on College Students' Physical Activity Behaviours- A Survry Study Based on 50 University** Li Shen[1], Garry Kuan[1], Ke Zhou[2] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia [2]School of Physical Education, Henan University, Kaifeng, Henan, China
P1-18	**Cross-cultural adaptation, reliability, and validity of the Chinese version of Athletes' Perceptions of the Coach-related Critical Attitudes Scale (APoCCAS-C)** Yuefan Li[*1], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
P1-19	**Validation of the Badminton Mental Toughness Questionnaire for Chinese University Student-Athletes** Li Chongwei[1], Ren Xuyue[1], Yee Cheng Kueh[2], Garry Kuan[1*] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia. [2]Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia.
P1-20	**A Systematic Review on the Effects of High-Intensity Interval Training as an Intervention for Obesity in Children and Adolescents: Efficacy and Implimentation Strategies** Limchee Shan.[1*], Garry Kuan[1], & Yee Cheng Kueh[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
P1-21	**Does Attentional Focus Affect Atheletes' Agility Performance? A Proposal** Lin, C. Y . & Lin, C. E.* National Taichung University of Education, Taichung, Taiwan
P1-22	**A Study on the Impact of Sports Participation Degree on Academic Performance among Junior High School Students** Hung Chia Hu [1], Chien-Hsun Lin [2*], Wang, Jian Jun [2] [1]Counseling Section / New Taipei Municipal Lujiang Junior High School [2]Department of Physical Education / Fu Jen Catholic University

P1-23	**Psychological Characteristics of Tennis Players: A Systematic Review and Meta-Analysis of Chinese Youth Development** Li Lingsong[*1,2], Garry Kuan[1] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia [2]Faculty of Physical Education, Harbin University, Harbin, Heilongjiang, China
P1-24	**Cross-cultural adaptation and validation of the Chinese version of the Injury-Psychological Readiness to Return to Sport (I-PRRS) Scales** Linran Zhang[*1], Zhutang Liu[12], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] School of Physical Education, Henan University, Kaifeng, Henan, China.
P1-25	**Construction of competency evaluation index system for CUBA Basketball Coaches** Liu Sheng Hui[1], Chin Ngien Siong[2], Teo Eng Wah[3] [1]University of Malaya [2]IPGM Kampus Batu Lintang [3]University of Malaya
P1-26	**The Impact of Rhythm Training on Training Outcomes and Performance in Table Tennis Athletes: A Systematic Review** Liu Linghong.[*1], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
P1-27	**Empirical Analysis of the Relationship Between Adolescent Physical Education and Academic Performance** Jinyu Lu[*1,2], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Shangqiu Professional Training College, Henan University, Shangqiu, Henan, China.
P1-28	**Research of Health-Related Physical Fitness and Cognition in Older and Middle-Aged Adults: Development Over the Past Decade** Michael Chen, Yun-Rui Yang, Ruei-Hong Li, Yu-Kai Chang * Department of Physical Education and Sport Sciences, National Taiwan Normal University, Taipei, Taiwan
P1-29	**Associations between Physical Activity, Depression, Self-esteem, and Suicide Ideation in Adolescents** Jaewook Nam.[1*], Donggeun Lee[1], Seungchan Lee[1], Youngho Kim.[1] [1]Seoul National University of Science and Technology, Department of Sport Science, Seoul

Poster Presentation (Session 2)			
Date: Jan. 20| Time: 13:30 – 17:30			
Room: Foyer			
Moderator:	Dr. Alan Alfiansyah Putra Karo Karo	Co-Chairperson:	Duan Weipeng
P2-30	**The Relationship between Mental Toughness and Endurance Capacity in High-Intensity Exercise among Futsal Student-Athlete** Neeracha Preeda, Pichapat Thiengtrong, Kamonmas Pondphaibunpong, Kesinee kummeeruk, Piyada Phuengmueang, Tanida Julvanichpong and Chatkamon Singnoy, Faculty of Sport Science, Burapha University		
P2-31	**A Narrative Review on the Effects of Body Composition on Sleep quality: Mechanisms and Implications** Owi Shie Lee.[1*], Garry Kuan[1], & Yee Cheng Kueh[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.		
P2-32	**The Effects of Verbal Feedback Frequency and Timing on Learning Tennis Forehand Skills: Insights from Different Learning Stages** Pang Longyue1, Garry Kuan1 1Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia		
P2-33	**Personality, hardiness, social support, and physical activity influences on mental stress among Chinese college students: a structural equation modeling approach** Mingzhu Pan[1,2], Yee Cheng Kueh[3], Garry Kuan[2 *] [1] School of Physical Education, Shangrao Normal University, Jiangxi, China. [2] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia. [3] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, Kota Bharu, Kelantan, Malaysia.		
P2-34	**Relationship between Physical Activity and Mental Health according to the Satisfaction of Basic Psychological Needs of Adults** Son, J.S.[1], Park, S.R[1*] [1]Chonnam National University physical education, South Korea		
P2-35	**Effectiveness of Sports Intervention on Internet addiction: A Systematic Review** Tingtion Shu.[1*], Garry Kuan[1], & Yee Cheng Kueh[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.		
P2-36	**Rhythm and Golf Putting: Innovative Applications of Electronic Drum Training** Wang Meng[1], Garry Kuan[1] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia		

P2-37	**A Systematic Review of Traditional Chinese Mind-Body Exercises for Adolescents with Subthreshold Depression** Shiyue Wang[1,2], Le Li[1,2], Kueh Yee Cheng[3], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Malaysia. [2] School of Rehabilitation Medicine, Jiangsu Medical College, China. [3] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, Malaysia
P2-38	**Psychometric Properties of the Sport Mental Health Continuum – Short Form Scale: Cross-Cultural Validation of the Chinese Adaptation** Xiawei Wang[1*], Yang Zhou[2], Lan Li[3], Yee Cheng Kueh[4], Linxian Zeng[1], Garry Kuan[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian 16150, Kelantan, Malaysia. [2] School of Physical Education in Main Campus, Zhengzhou University, Zhengzhou 450001, Henan, China. [3] School of Physical Education, Kyonggi University, Suwon-si, Gyeonggi-do,16216, South Korea. [4] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian 16150, Kelantan, Malaysia.
P2-39	**Exploring the influence of resilience on the work passion and work motivation of secondary physical education teachers** [1]Yishuai Wang, [1]Garry Kuan, [2]Ke Zhou, [3]Yee Cheng Kueh, [*1]Jiarun Wu & [1]Zhutang Liu [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] School of Sports Science, Henan University, Kaifeng, Henan, China. [3] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
P2-40	**The Effect of Self-Talk on Basketball Shooting Performance: A Literature Review** Wei-Chiun Wu, Chueh-Yin Chen, Jui-Ti Nien, Yu-Kai Chang* Department of Physical Education and Sport Sciences, National Taiwan Normal University, Taipei, Taiwan
P2-41	**The Relationship Between Obesity Stigma and Physical Activity: A Systematic Review** Wong Siew kin.[*1], Garry Kuan[1], Yee Cheng Kueh[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [2] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.
P2-42	**The Innovative Multi-Learning: A Study on the Positive Attitude Transformation Process of University Students' Toward ' Senior Sports Services** Ya Wen Liu[1*], Shih Yun Huang [2], Li, Jia Jen [3] ,Frank Jing-Horng Lu [4] [1]National Taipei University of Business, Physical Education Office [2]National Taipei University of Business, Department of Accounting Information [3]National Taipei University of Business, Department of Business Administration [4]Department of Physical Education / Chinese Culture University

P2-43	**Integrating Behaviour Change Wheel Theory and Brain-Breaks Exercise on Psychological Variables and Sports Participation Among College Students in Harbin, China: A Proposal** Yin Liang[1,2], Garry Kuan[2] [1] School of International Education, Harbin University of Commerce, Harbin, China [2] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia
P2-44	**Mental Imagery Increases Athlete's Mental Fatigue:A Systematic Review** Yun-Che Hsieh [1,2*], Frank Jing-Horng Lu [3], Yi-Hsiang Chiu[3], Hong-Yu Liu[4] [1]Department of Sport Sciences /Army Academy, Taoyuan, Taiwan [2]Institute of Sport Coaching Science, Chinese Culture University, Taipei, Taiwan [3]Department of Physical Education / Chinese Culture University, Taipei, Taiwan [4]Department of Exercise and Health Promotion / Chinese Culture University, Taipei, Taiwan
P2-45	**Effects of Cardiorespiratory Fitness on Working Memory in Middle-aged Adults: An fMRI Study** Yun-Hsin Hsueh, Michael Chen, Yi-Ting Cheng, Yu-Kai Chang* Department of Physical Education and Sport Sciences, National Taiwan Normal University, Taipei, Taiwan
P2-46	**A Review of Goal Setting in Athletes: Research Insights and Future Directions** Yun-Rui Yang, Wei-Chiun Wu, Dong-Tai Chen, Yu-Kai Chang* Department of Physical Education and Sport Sciences, National Taiwan Normal University, Taipei, Taiwan
P2-47	**Evaluating the Psychometric Properties of the Chinese Version of Q-SPACE: A Comprehensive Analysis of the School Physical Activity Environment Questionnaire** Linxian Zeng[1,2], Wei Liu [4], Garry Kuan [2], Yee Cheng Kueh[3], YaLi Zhou[2] [1] School of Continuing Education, Yunnan Minzu University, Kunmin650000, China. [2]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [3] Biostatistics and Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia. [4] Yunnan Provincial Academy of Educational Sciences, No. 2 Xuefu Road, Kunming, Yunnan, China.
P2-48	**The Influence of Social Support on Physical Exercise Motivation in College Students: Examining the Mediating Effects of Self-Efficacy and Psychological Resilience** Xinyi Zhang[1], Garry Kuan[1] [1]Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia
P2-49	**Associations of Improper Smartphone Use with Self-esteem in College Students: A Systematic Review** Zhou, Yali.[1*], Kuan, Garry.[1] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia
P2-50	**Transitioning from Street Dance Dancer to Coach in China: The Role of Support Systems** ZhouRonghui, Erie Zuraidee Bin Zulkifli Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia

P2-51	**Impact of Interrupting Prolonged Sitting with Short Exercise Sessions on Body Composition and Plasma Metabolomics in Sedentary Obese Adults: A Randomized Controlled Trial** Yinghao Li, M N Jawis, Erie Zuraidee Zulkifli, Wangli Zhang, Peipei Wang
P2-52	**Psychometric Properties of the Chinese Version of Basic Needs Satisfaction in Sport Scale (BNSSS)** Qiwei Liao[1], Garry Kuan[1], Zhutang Liu[1], Liying Yao[2] [1] Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia, Kelantan, Malaysia [2] School of Physical Education, Guangzhou University, Guangdong Guangzhou, 510006, PR China

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ABSTRACTS

Keynote Speakers

Prof. Dr. Youngho Kim

Department of Sport Sciences,
Seoul National University of Science and Technology, Korea
President, Asian-South Pacific Association of Sport Psychology (ASPASP)

Biography:

Dr. Youngho Kim is a Full Professor in the Department of Sport Science at Seoul National University of Science and Technology, where he has been a faculty member since 2007. He earned his Ph.D. in Health and Exercise Psychology from the University of Wollongong, Australia. Additionally, he holds a Master's degree in Sport Psychology and a Bachelor's degree in Physical Education from Seoul National University. Dr. Kim has extensive teaching experience, with a curriculum that includes courses on health education and health and exercise psychology. His research concentrates on physical activity, health promotion, and the psychosocial factors affecting exercise behaviour, particularly in children, adolescents, and adults. Dr. Kim is actively involved in professional organizations, currently serving as President of the Asian-South Pacific Association of Sport Psychology and Vice President of the International Society of Sport Psychology. He has published numerous articles in leading journals, significantly contributing valuable insights into physical fitness and psychological well-being. His work has garnered considerable recognition, evidenced by various research grants, including projects focused on physical activity interventions and the psychological determinants of exercise behavior. With over 30 years of experience in the field, Dr. Kim is dedicated to enhancing our understanding of the relationship between physical activity and mental health, with the goal of implementing effective strategies that promote healthier lifestyles across diverse populations.

Doping in Sports: International Actions & Psychosocial Understanding of Athletes' Doping

Abstract:

This presentation addresses the importance of doping behaviour and its related psychosocial factors within sports contexts. It introduces research outcomes using various research designs, including systematic literature reviews, meta-analysis, cross-sectional studies, and interventions. Additionally, I will present an international survey project funded by the World Anti-Doping Agency (WADA) and call for research collaboration focusing on the development of the Athlete Doping Behavior Scale (ADBS) related to doping in the Asian region. The current presentation aims to enhance the understanding and awareness of athletes and coaches regarding the influencing factors related to doping behaviour. This will strengthen their ability to prevent doping and contribute to the development of an internationally standardised measure for doping behaviour, allowing for the objective evaluation of the psychological and socio-contextual characteristics related to doping among athletes.

Keywords: Doping behaviour, Psychosocial factors, Athlete doping, Sports psychology.

Professor Dr. Frank Jing-Horng Lu

Department of Physical Education,
College of Health and Kinesiology,
Chinese Culture University, Taiwan
Vice President, Asian Society of Kinesiology (ASK)

Biography:

Professor Dr. Frank Jing-Horng Lu is a professor at the Department of Physical Education/Graduate Institute of Sport Coaching Science, Chinese Culture University, Taipei, Taiwan. He completed his doctoral degree in 1998 at the University of North Carolina at Greensboro. He was the former vice president of the Asian-South Pacific Association of Sport Psychology (ASPASP) and an active member of the International Society of Sport Psychology (ISSP) and European Society of Sport Psychology (FEPSAC). He serves as the section editor for the Journal of Sports and Exercise Science (Taiwanese) and Peer J (international journal). His major research interests are stress and athletes' mental health, athletic mental energy, and the psychology of sports excellence. Professor Lu is the major investigator of the sport psychology lab at Chinese Culture University. He instructs 7 postgraduate students and leads them to research sports psychology in the field or lab. Professor Lu regularly publishes about 2-3 international journal papers and 2-3 domestic journal papers every year. He enjoys tennis during the weekend with his friends and regularly visits his hometown in central Taiwan for vacation.

Athletic Mental Energy: Concept Development, Measurement, Empirical Studies, and Updates

Abstract:

Athletic mental energy (AME) is a newly emerged research topic in sport psychology, and is defined as “an athlete’s perceived existing state of energy which is characterized by its intensity in motivation, confidence, concentration, and mood (Lu et al., 2018) ” Lu et al. (2018) adopted the International Life Science Institute (ILSI) framework and used six studies in developing and validating a sport-specific 18-item, 6-factor measure termed "Athletic Mental Energy Scale, AMES." After six years of development, the AMES has been studied in 14 countries, and 43 papers cited. In this lecture, I will report how these studies have been done by their research questions, methods, and main results. From six yeas of development, AMES is not only a useful measure to examine athletes' psychological attributes and mental energy but also an efficient tool to evaluate athletes’ psychological state. Further, I will report a new development of AMES by its factor structure, construct validity, measurement model, and measurement invariance. Moreover, a potential research gap and future direction will be presented.

Keywords: psychology of sport excellence, optimal psychological state, concentration, motivation

Prof. Dr. Naruepon Vongjaturapat

Faculty of Sport Science, Burapha University, Thailand

Vice President: Asian-South Pacific Association of Sport Psychology (ASPASP)

Biography:

Dr. Vongjaturapat received his Doctor of Philosophy degree in Human Performance, concentrated in Exercise and Sport Psychology, from Oregon State University, USA, in 1993. He received his master's (M.Ed.) and bachelor's degrees in education (B.Ed.) with an emphasis on physical education from the University of Louisiana at Monroe, USA, and Srinakharinwirot University, PE Campus, Thailand, respectively. He has currently served as the Dean of the Faculty of Sport Science at Burapha University, Thailand. His areas of interest are exercise and sport motivation, long-term athlete development (LTAD), psychological skill training, research methodology for exercise and sport science, and physical activity. He has published and presented more than 75 research projects on exercise behavior, sport, and exercise psychology for athletes, coaches, and parents. He has also worked with the Thai Health Promotion Foundation for 15 years. Dr. Vongjaturapat has taught at both the undergraduate and graduate levels for 35 years and has supervised 32 PhD and master's students in exercise and sport psychology. He has served as the president of the Thailand Applied Sport Psychology Associations, vice president (membership) and treasurer of the Asian and South Pacific Association of Sport Psychology (ASPASP), vice president of the Sport Science Society of Thailand (SSST), and managing council member for the Thai Association for Health, Physical Education, and Recreation (TAHPER). He has received two national academic outstanding awards from the Sport Authority of Thailand as well as an outstanding public service award from the Ministry of Social Development and Human Security.

The Diverse Challenges and Motivations of THAI Olympians and Paralymplans: the unique Journeys to Elite Competition

Abstract:

The performance of the Thai team at the 2024 Olympic and Paralympic Games revealed notable disparities in their psychological and physical abilities. While both groups share a dedication to excellence and a desire to represent their nation, their mental frameworks are shaped by distinct backgrounds, challenges, and motivations. Thai Olympians are often driven by personal achievement and national pride, concentrating on their best athletic performance. They train in fiercely competitive environments under immense pressure from media, sponsors, and fan expectations. Key components of their psychological training include focus, self-control, and coping mechanisms for high-stakes competition. For many, winning medals and establishing their reputations as top athletes are the ultimate goals. However, this intense performance-centric mindset can sometimes lead to heightened stress and anxiety. In contrast, Thai Paralympians demonstrate a unique resilience developed through overcoming personal and social challenges linked to their disabilities. Many have faced societal prejudices and barriers to accessibility beyond sports. This tenacity fosters a strong sense of purpose; they aim to challenge stereotypes, uplift others, and promote inclusivity while competing for personal and national pride. Their motivation often extends beyond winning medals to making a broader impact on societal perceptions of individuals with disabilities. Although both groups contend with performance anxiety and pressure to succeed, their psychological journeys differ. Olympians operate within a system that prioritises physical prowess and is supported by established resources. Paralympians, on the other hand, may face logistical and emotional challenges that require greater independence. In conclusion, while both Thai Olympians and Paralympians exhibit passion and commitment, their unique life experiences and social roles shape their mental approaches. Paralympians balance their competitive objectives with a commitment to overcoming adversity and inspiring societal change, whereas Olympians focus on performance and legacy.

Dr. Chin Ngien Siong

Department of Physical Education and Health,
Institute of Teacher Education Malaysia Batu Lintang Campus
Kuching, Sarawak, Malaysia
Managing Council Member: Asian-South Pacific Association of Sport Psychology (ASPASP)

Biography:

Chin is a senior lecturer at the Department of Physical Education and Health at the Institute of Education Malaysia Batu Lintang Campus, Sarawak, Malaysia. He is the Coaching Education Panel Member of the Badminton Association of Malaysia (BAM), Committee Member of the Malaysian Sports Psychology Association (MASPA), Sarawak Sports Psychology Association and Managing Council Member of the Asian South-Pacific Association of Sports Psychology (2022 - 2026). Currently, he is the President (Asia) of the International Section of Physical Education and Sport Management (FIEPS) and South East Asia Regional Representative for the Asia Federation of Physical Education and Sport (Asia, FIEPS). He has served as the Panel Member of the National Coaching Academy (National Sports Institute of Malaysia), Sports Consultant for the Sarawak Sports Corporation, Deputy Chair of Sarawak Coaching Advisory Panel and Sports Psychology Advisor for the Sarawak State Taekwondo Association (WTF). He has published books, peer-reviewed articles, proceedings, book chapters on sports, sports psychology and physical education. He is also the Editorial Board Member for Perceptual and Motor Skills Journal, Associate Editor for Frontier in Public Health and reviewer for indexed journals (WOS, Scopus). He was awarded the Ministry of Education Malaysia and Sarawak State Education Department Authoritative Lecturer Award (2024), National Sport Technology Innovation Award (International Category, 2023), 34th International Invention, Innovation and Technology Exhibition Gold Award (iTEX 2023) and Institute of Education Malaysia Research and Innovation Award (2022, 2024).

The Needs Satisfaction, Thwarting And Motivation among Badminton Coaches

Abstract:

The understanding of the intricate interplays of satisfaction, thwarting and motivation are paramount in fostering a positive environment in the current dynamic realm of badminton coaching. Objectives: The study aimed to examine the basic needs satisfaction, psychological need thwarting and motivation among coaches in Malaysia Methods: The participants were 250 badminton coaches aged 18 to 47 from different states in Malaysia. The Basic Need Satisfaction at Work Scale for Coaches (BNSWSC; Deci et al., 2001), Psychological Need Thwarting Scale (PNTS; Bartholomew, 2011) and Coach Motivation Questionnaire (CMQ; McLean et al., 2012) were used. Descriptive analysis, two-way ANOVA and hierarchical regression analysis were conducted. Results: Results revealed that the between-subjects ANOVA showed there was significant main effect of gender on identified, $p = .030$. Besides, the between-subjects ANOVA revealed there was significant main effect of age groups on autonomy, $p = .008$. Furthermore, there was no significant interaction between gender vs age on all the subscales with $p > .05$. Lastly, in the final model of the hierarchical regression analysis, there were five control measures were statistically significant: competence ($\beta = .198$, $p = .005$), relatedness ($\beta = .309$, $p < .001$) in BNSWSC, and relatedness ($\beta = .313$, $p < .001$) in PNTS. Conclusion: The results revealed a better understanding of what drives coaches and how to effectively motivate them which involves creating an environment that supports their psychological needs and helps them thrive within the coaching framework.

Prof. Dr. Yu-Kai Chang

Distinguished Professor and Chair,
Department of Physical Education and Sport Sciences
National Taiwan Normal University
Vice President: Asian-South Pacific Association of Sport Psychology (ASPASP)

Biography:

Dr. Yu-Kai Chang holds the position of Distinguished Professor and Chair of the “Department of Physical Education and Sport Sciences” at National Taiwan Normal University, Taiwan, and serves as the Director of the “Physical Activity and Cognitive Neuroscience Laboratory.” Dr. Chang is currently the Treasurer for the “International Society of Sports Psychology (ISSP)” and the Vice-President of the “Asian-South Pacific Association of Sport Psychology (ASPASP).” His research is dedicated to Sports and Exercise Psychology, with a particular focus on "Exercise and Mental Health," "Sports/Performance Psychology," and "Mindfulness." Dr. Chang approaches his work from a cognitive neuroscience perspective. To date, Dr. Chang has authored more than 250 articles in both domestic and international renowned journals, contributed over 10 chapters to international textbooks, and translated four international academic books. Recognized as one of the World’s Top 2% Scientists in Sport Science since 2021, Dr. Chang has received numerous accolades, including the International Fellow of the National Academy of Kinesiology (NAK, USA), the Distinguished Alumni Award from the School of Health and Human Sciences at University of North Caralina at Greensboro, USA, and the Outstanding Research Award from the Taiwan Ministry of Science and Technology in 2019. He was also recognized as the Early Career Distinguished Scholar by the North American Society for the Psychology of Sport and Physical Activity (NASPSPA) in 2014 and by the ISSP in 2013. Beyond his academic achievements, Dr. Chang is an expert in Chinese martial arts, specializing in Bagua, Xingyi, Taiji, and Shaolin. He has showcased his skills in numerous domestic Taiwanese and international martial arts competitions.

Mindfulness: A Novel PST Approach to Enhance Athletes' Mental Health and Performance—Empirical Insights

Abstract:

Athletes' mental health is essential for sustaining performance and well-being under competitive pressures. This presentation introduces mindfulness as a novel Psychological Skills Training (PST) approach, framed within the COM-B model, to enhance mental capabilities and toughness. Mindfulness, defined as a purposeful, non-judgmental awareness of the present moment, has been shown to reduce stress, anxiety, burnout, and rumination while improving resilience, attention, and overall well-being. Two empirical studies from my research laboratory provide evidence of its efficacy. A cross-sectional study identified significant positive correlations between dispositional mindfulness and psychological skills ($r = 0.36$, $p < .01$), as well as mental toughness ($r = 0.27$, $p < .01$), among Chinese multiple-sport athletes. Additionally, an experimental study involving 35 track-and-field athletes demonstrated that a single 30-minute session of mindfulness induction (MI) or relaxation induction (RI) significantly reduced state anxiety ($p = .003$) and negative affect ($p < .001$), while increasing frontal theta power ($p = .009$), suggesting similar neural mechanisms for immediate mental health improvements. These findings highlight mindfulness as an effective and accessible PST technique, with both MI and RI offering comparable benefits. Athletes can adopt these approaches to achieve an optimal mental state during training or competition, and further research into mindfulness-based interventions is recommended to enhance resilience and mental toughness across athletic populations.

Keywords: Mindfulness, Psychological Skills Training, Mental Health, Athlete Performance

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ABSTRACTS

Invited Speakers

Associate Professo Dr. Saengreol Park

Associate professor, Department of Physical Education, College of Education, Chonnam National University

Biography:
Saengryeol Park is an associate professor at department of physical education at Chonnam National University, South Korea. He is interested in motivation and mental helath in a range of population. In addition, he looks at the effects of psychological techniques in athletes, particularly in football, weightlifting, sport climbing, and baduk.

Current psychological techniques to manage psychological skills in athletes

Abstract:
A number of psychological techniques are carried out in sport settings. This presentation is aimed to address a few techniques, which are in the examining process in South Korea. The first stud is conducted to examine the effects of goal setting adopting mandala chart. The chart is known to be used by Shohei Ohtani, a Japanese player in Major League Baseball. The chart is combined with goal setting techniques including process and performance goals on the basis of one-to-one coaching. Another study is being conducted to examine the role of self-talk on anxiety in indoor rock climbing. Self-talk technique is provided to athletes with static stretching to manage anxiety. In addition, we adopted aromatherapy, consisted of inhaling oils and applying to skin, to manage anxiety and concentration. Imagery and singing bowl techniques are incorporated into aromatherapy.

Keywords: Psychological techniques, Goal setting, Self-talk, Aromatherapy.

Associate Professor Dr. Kueh Yee Cheng

Biostatistics & Research Methodology Unit, School of Medical Sciences, Universiti Sains Malaysia, Malaysia

Biography:

Associate Professor Dr. Kueh Yee Cheng is an Associate Professor in the Biostatistics & Research Methodology Unit at the School of Medical Sciences, Universiti Sains Malaysia. She has been actively involved in research and publications related to questionnaire development, translation, and validation. Her areas of expertise include research methodology, biostatistics, and statistical modeling, particularly in the context of data on physical activity and health. She is also a member of the editorial board for WoS-indexed journals such as Scientific Reports and PLOS ONE.

Thinking Like a Scientist: Addressing Statistical and Sample Size Challenges in Sports Research

Abstract:

In applied settings, sport scientists often have limited access to athletes. This is particularly true at the elite level, where athletes competing in events such as the Olympic Games, Commonwealth Games, and World Championships are rarely available for research participation. As a result, practitioners working as applied scientists may face challenges in obtaining sufficient sample sizes for statistical analyses. This presentation focuses on the issues of study design, sample size and statistical analysis in applied sport research. It does not aim to provide a strict "cookbook" approach but rather offers alternative suggestions and potential solutions for addressing the challenges of small sample sizes in research conducted in applied settings. There are no universally accepted "gold standard" rules for determining the appropriate sample size or choosing between parametric and non-parametric statistical tests. However, certain statistical principles can serve as guidelines to help researchers select suitable sample size and tests to assess the validity of their findings. The presentation begins by introducing several study designs commonly used in sport research. It then discusses sample size determination for different study designs and how these considerations can enhance the generalizability of results to the broader study population.

Keywords: Statistical analysis, Sample size, Study design, Applied sports research.

Dr. Alan Alfiansyah Putra Karo Karo

Physical Education Study Program, Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Indonesia

Biography:

Dr. Alan Alfiansyah Putra Karo Karo, M.Pd. is a Lecturer in the Physical Education Study Program of the Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Indonesia. He currently serves as the Head of the Master of Physical Education Study Program. Previously, Dr. Alan served as the Head of the Research and Community Service Institute of the Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Indonesia. Dr. Alan is active in research and scientific publications, focusing on physical education, student character, and the development of technology-based learning modules. Alan is also involved in various international and local seminars, sharing knowledge about sports and health education, Alan Alfiansyah Putra Karo Karo has published a number of articles in scientific journals, including: Character formation of students through full-time school programs. Research on the influence of leadership and motivation on teacher performance.

The Role of Artificial Intelligence in Managing Athlete Anxiety

Abstract:

Anxiety is one of the psychological factors often faced by athletes in the world of sports. Excessive anxiety, if not managed properly, can interfere with concentration, reduce motivation, and cause decreased performance. Therefore, anxiety management is an important aspect in sports psychology and athlete health. As technology advances, the use of artificial intelligence (AI) in various fields, including sports, is increasingly popular. Artificial intelligence, with the ability to analyze large amounts of data, provides deeper and faster insights into the psychological condition of athletes. In this context, AI can be used to help detect anxiety levels, provide recommendations for stress management, and design more personalized and effective mental training programs. However, although this technology offers a lot of potential, the application of AI in managing athlete anxiety is still relatively new and requires a deeper understanding. Several studies have tried to explore how AI can be utilized in sports psychology, but are still limited in terms of methodology, practical applications, and understanding of its impact on athletes as a whole. This study aims to provide a clearer picture of how artificial intelligence can be used to help athletes overcome their anxiety. By reviewing the existing literature, this study will also assess the effectiveness of various AI-based approaches in improving the psychological well-being and performance of athletes.

Keywords: Artificial intelligence, Anxiety, Sports psychology, Mental health management.

Assoc Prof. Dr Yao Liying

School of Physical Education, Guangzhou University, Guangdong Guangzhou, 510006, PR China

Biography:

Associate Professor Dr. Yao Liying, Ph.D., is an accomplished academic and dedicated researcher specializing in the field of Sports Psychology. She is currently a postdoctoral fellow at the Research Station of Pedagogy at Guangzhou University in China. Dr. Yao completed her Doctor of Philosophy at the School of Health Sciences, Universiti Sains Malaysia, following her master's degree in Physical Education from Guangzhou University and a bachelor's degree from Shangrao Normal University. Dr. Yao's primary research interests encompass Exercise Psychology, Sport Psychology, physical fitness testing and assessment, as well as the relationship between physical activity and mental health. To date, she has successfully led nearly 10 provincial and national research projects in China and has published nearly 30 articles in both domestic and international journals. Additionally, she contributed to the academic community by translating an international book on sports psychology. Recognized for her commitment to excellence, Dr. Yao has received numerous awards, including the Gold Medal for Innovation at the 2023 "Empowering Society through Education 5.0" conference. Her accolades also include the Outstanding Young Academic of Jiangxi Province in 2022 and the Outstanding Coach title in 2021. Beyond her academic contributions, she is an accomplished athlete, holding the title of a Level II basketball player in China and serving as a national referee in track and field events. Dr. Yao's multifaceted expertise and dedication to sports and education significantly contribute to advancing knowledge and practice in her field.

Cumulative Ecological Risk, Exercise Environment, and Self-Control: Pathways to Physical Activity in College Students

Abstract:

Physical activity is crucial for the health and well-being of college students. However, participation in physical activities is influenced not only by individual factors but also by various ecological factors. Cumulative Ecological Risk (CER), which refers to the combined adverse effects of social, environmental, and individual risk factors, significantly impacts physical activity behaviours. Despite its relevance, the influence of CER on college students' physical activity has been underexplored. This study aims to investigate how CER affects college students' physical activity, focusing on the mediating roles of exercise environment and self-control. The goal is to identify pathways through which CER influences students' engagement in physical activity and to provide actionable insights for promoting healthier lifestyles. A cross-sectional survey was conducted with data collected from 1,025 students in Jiangxi, Shangrao, China. Measures included the CER scale, exercise environment scale, self-control scale, and physical activity scale. Statistical analyses, including correlation analysis, multiple regression, and Bootstrap testing, were performed to examine the relationships among CER, exercise environment, self-control, and physical activity lifestyle. The analysis revealed that CER significantly negatively predicted both the exercise environment ($\beta = -0.332$, $P < 0.01$) and self-control ($\beta = -0.517$, $P < 0.01$), which in turn negatively impacted physical activity lifestyles ($\beta = -0.251$, $P < 0.01$). Both exercise environment ($\beta = 0.090$, $P < 0.05$) and self-control ($\beta = 0.204$, $P < 0.01$) positively predicted physical activity lifestyles. Bootstrap testing indicated that CER had a direct negative effect on physical activity (-0.251, 61.5%) and an indirect effect via exercise environment and self-control (-0.157, 38.5%).The findings suggest that CER adversely affects college students' physical activity both directly and indirectly. Enhancing the exercise environment and strengthening self-control are key strategies to mitigate the negative impact of CER, providing a framework for promoting healthier physical activity behaviours.

Keywords: Social ecological risks; Physical activity; Self-control

Assoc. Prof. Dr. Chatkamon Singhnoy

Faculty of Sport Science,
Burapha University, Thailand

Biography:

Chatkamon Singnoy, Ph.D., is a researcher with expertise in exercise and sport science, specifically in sport psychology. His research focuses on factors affecting athlete burnout, mental toughness, perceived motivational climate, exercise attitudes, exercise imagery, and sports perfectionism. He has published several research articles in various peer-reviewed journals in both Thailand and internationally. As an experienced National Delegate for FIEPS and an Editorial Board Member for Sports & Health Research Notes, he has made significant contributions to the fields of sports science and applied sports psychology. Additionally, he has served on committees for the Sports Science Society of Thailand and the Thailand Applied Sports Psychology Association. Dr. Singnoy has also authored textbooks and pocketbooks on sport psychology and is the founder of the Sport Psy Lab on Facebook and Sport Psychology Talk on YouTube. In addition to his research, Dr. Singnoy has extensive experience as a sport psychologist, working with athletes at various levels, including youth, international competition, and professional careers. He is a sports psychology expert at the Sports Authority of Thailand and has closely worked with the Thailand national team in various levels of sports competitions, including the SEA Games, Asian Games, ASEAN Para Games, and Asian Para Games.

Addressing the "Beast in the Gym, Weak in the Game" Phenomenon: Best Practices in Sport Psychological Skill Protocol

Abstract:

This paper explores best practices in tailor-made Psychological Skills Training (PST) to enhance athletic performance. Recognizing the crucial role of psychological factors in optimizing performance and acknowledging that mental factors significantly influence an athlete's ability to reach their full potential, this protocol provides a structured, three-step approach to address mental weaknesses and cultivate essential psychological skills. The first step, Needs Assessment, emphasizes a thorough evaluation of the athlete's mental strengths and weaknesses using a variety of tools, including questionnaires, psychological measurements, and behavioral assessments. This assessment informs the development of a tailored training program. The second step, Athlete Development, focuses on building a strong mental foundation through basic and advanced training techniques. Basic training emphasizes cultivating a positive mindset, setting SMART goals, fostering internal motivation, and developing communication skills. Advanced training incorporates techniques like meditation, emotional control, confidence-building, imagery, and Neuro-Mindful Athlete training (mindfulness based on the Focus Band). The final step, Application in Competitions, focuses on transferring the acquired skills to real-world competition settings, enabling athletes to effectively manage stress, control emotions, maintain focus, and solve problems under pressure. This PST protocol provides a practical framework for athletes, coaches, and sport psychologists to systematically develop mental toughness and optimize athletic performance. A case study demonstrates that by addressing individual needs and fostering essential psychological skills, this approach empowers athletes to achieve peak performance and reach their full potential.

Keyword: Psychological Skills Training (PST)/ Mental Toughness/ Performance Enhancement/ Needs Assessment/ Mindfulness

Sarawut Kusump, PhD

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Sport Authority of Thailand Region 3 Center,
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Biography:

Dr. Sarawut Kusump is the Chief of the Regional Sports Science Section at the Sport Authority of Thailand Region 3 Center, Nakhon Ratchasima. He holds a Ph.D. in Exercise and SportsScience (Sport Psychology) from Burapha University and specializes in neurofeedback, cognitive training, mental skills training, and athlete performance development. With extensive experience as a sport psychologist, Dr. Sarawut has worked with youth and professional athletes, as well as national teams competing in events such as the ASEAN Para Games, Asian Para Games, and Paralympic Games. He has also developed and conducted short-term training courses, including mental skills training for youth athletes and physical conditioning and mental skills development. The recipient of multiple international awards, including four ISSEP Best Oral Presentation Awards and one from ASPASP, Dr. Sarawut is also an executive committee member of the Thailand Applied Sport Psychology Association (TASPA). He is committed to advancing sport psychology through research, education, and practical applications for athlete development.

The Significance of Technological Advancements in Enhancing Mental Training for Athletes

Abstract:

Technological advancements have significantly enhanced mental training for athletes, equipping them with innovative tools to improve focus, attention, concentration, and decision-making. Neurofeedback devices, such as FocusBand, allow athletes to monitor brain activity in real time, providing actionable insights to optimize concentration and manage stress. By promoting calmness under pressure, these tools help athletes achieve peak mental performance. AI-driven mental coaching further personalizes mental training through the analysis of psychological and performance data. This approach enables the development of tailored programs that address individual needs, guiding athletes through mindfulness exercises and stress-management strategies. Wearable devices, including smartwatches and biosensors, have become essential in tracking physiological responses, such as heart rate variability (HRV) and stress levels. The eye tracking can be a powerful tool to enhance mental training for athletes by providing real-time insights into focus, decision-making, and visual-motor coordination. This data empowers athletes to recognize stress triggers and adopt effective techniques for recovery and emotional control. Mobile apps like Breathing Zone, complement these tools by offering convenient access to guided meditations, breathing exercises, and cognitive training programs. Cognitive training apps, such as NeuroTracker, play a crucial role in sharpening mental agility. These apps focus on enhancing memory, attention, and problem-solving skills through interactive exercises. Athletes benefit from improved reaction times and situational awareness, essential for high-pressure scenarios. In conclusion, by integrating these technologies, mental training has become more precise, accessible, and impactful.

Keywords: Technological Advancements, Mental Training, Athletes Performance

Prof. Dr. Jin Hwang

Department of Physical Education,
College of Education, Jeonbuk National University, Korea

Biography:

Dr. Jin Hwang is a Tenured Professor at Jeonbuk National University, Korea, and the Director of the Sport and Exercise Psychology Lab. He is also currently the Vice-President of the Korean Society of Sport Psychology (KSSP) and serves as the mental consultant for Jeonbuk Sports High & Middle School and Jeonbuk Hyundai Motors Youth F.C. Dr. Hwang's research focuses on sports and exercise psychology, particularly in areas such as sports psychological counselling, athletes' life skills, and work-life balance, as well as cultural social psychology. To date, Dr. Hwang has published more than 150 articles in domestic and international journals recognized for their contributions to the field. He is also the author of three textbooks based on sport and exercise psychology. Additionally, Dr. Hwang plays a key role in the Sport Policy Committee, providing psychological support for the Jeonbuk Ministry of Education.

More Better Online Psychological Assessments and Counseling of Youth Football Athletes in Jeonbuk Hyundai Motors F.C

Abstract:

The purpose of this study was to introduce the know-how and key elements of online psychological assessments and consulting for the youth players of Jeonbuk Hyundai Motors. Traditionally, psychological assessments and counselling have been conducted offline on a one-on-one basis. However, due to the large number of youth team players, constraints of time and space, and the limitation of conducting offline sessions, online methods were utilized. This study aims to present these methods and contents. Combining both off line and online approaches, it seeks to explore constructive and developmental directions for consulting programs and establish a systematic sports psychology service.

Keywords: Psychological assessments, Online, Youth players, Football

Assistant Professor Feng-Tzu Chen

Department of Kinesiology, National Tsing Hua University
Executive Director, Society for Sport and Exercise Psychology of Taiwan
Assistant Editor, International Journal of Sport and Exercise Psychology
Director, Physical Activity and Brain with Mental Health Laboratory

Dr. Feng-Tzu Chen is an Assistant Professor in the Department of Kinesiology at National Tsing Hua University, Taiwan, and currently serves as the Executive Director of the Society for Sport and Exercise Psychology of Taiwan (SSEPT). Dr. Chen earned his Ph.D. from the Graduate Institute of Athletics and Coaching Science at National Taiwan Sport University (NTSU) and has a strong foundation in sports science and cognitive neuroscience. Over the years, he has made significant contributions to academic research in sport and exercise psychology, cognitive neuroscience, and the development of exercise prescriptions tailored to aging populations. His innovative work explores the relationship between physical activity and higher cognitive functions (e.g., executive functions), addressing critical issues affecting aging and special populations, such as children born preterm and individuals with cognitive impairments. Dr. Chen has authored over 70 peer-reviewed articles and four book chapters. He has demonstrated academic leadership as an assistant editor and associate editor for the International Journal of Sport and Exercise Psychology (SSCI journal) and as an associate editor for the Journal of Sports Performance (Taiwan SCI journal). His research often employs advanced neuroscience methodologies, including electroencephalography (EEG) and magnetic resonance imaging (MRI), to investigate how exercise interventions affect brain structure and function. Dr. Chen's dedication to research and education has earned him prestigious awards, such as the Young Investigator Award from the Asia Society of Kinesiology (ASK) and the Atsushi Fujita Scholarship from the Asia South Pacific Association of Sports Psychology (ASPSPA). Through cross-disciplinary collaboration and innovation, Dr. Chen continues to advance sports science and cognitive health.

Effects of Acute Exercise on Executive Functions in Children with Preterm Birth: Insights from Multiple Investigations

Preterm birth significantly affects cognitive development, with executive functions—such as inhibitory control and planning—being particularly vulnerable. This presentation synthesizes findings from three comprehensive studies investigating the effects of acute exercise on executive functions in children born preterm. The first study establishes the beneficial effects of acute exercise on executive functions, confirming its immediate impact on cognitive performance (i.e., inhibitory control). The second study compares exercise modalities, including aerobic and resistance exercise, to identify their distinct contributions to executive function improvement. The third study employs event-related potential (ERP) techniques to uncover the neural mechanisms underlying these cognitive enhancements. ERP measures, such as P300 amplitude and latency, reveal how acute exercise modulates brain activation, providing objective evidence of its influence on cognitive processing. This presentation will summarize the acute exercise effects on executive functions, explore the comparative efficacy of different exercise types, and delve into the interaction between exercise and brain activation as assessed through ERP. Additionally, practical implications for integrating acute exercise into educational and therapeutic programs will be discussed, offering actionable strategies to support cognitive development in children with a history of preterm birth. The findings collectively highlight the promise of acute exercise as a low-cost, accessible, and efficient intervention to optimize cognitive outcomes, underscoring its potential role in enhancing the quality of life for this at-risk population.

Associate Professor Dr. Garry Kuan

Exercise and Sports Science Programme,
School of Health Sciences, Universiti Sains Malaysia, Malaysia
Secretary-General, Asian-South Pacific Association of Sport Psychology (ASPASP)
Secretary-General, Asian Council of Exercise and Sports Science (ACESS)

Biography:

Dr. Garry Kuan is an Associate Professor at the Exercise and Sports Science Programme, School of Health Sciences, Universiti Sains Malaysia. He currently serves as the Asian-South Pacific Association of Sport Psychology (ASPASP), the Secretary-General of the Asian Council of Exercise and Sports Science (ACESS), the Malaysian Sport Psychology Association (MASPA), and the Scientific Committee of World Exercise Medicine. He has published over 350 scholarly manuscripts, including more than 140 in high-impact ISI journals, and has acted as an editor for numerous international journals. Previously, Dr. Kuan served as a Senate member at Brunel University, a Council member at Victoria University, and was a contracted sports psychologist with the Australian Institute of Sport and Team Great Britain. His research has received multiple international awards, including the 2024 Top Research Scientist Malaysia (TRSM), the 2023 National Sports Innovator Champion, the 2023 Best JCI Malaysia Sustainable Development Goal Award, the 2022 Malaysian Book of Records – Human Achievement, the 2021 International Society of Sport Psychology (ISSP) Developing Scholar Award, and the 2021 JCI Top Ten Outstanding Young Malaysian. In his leadership role, Dr. Kuan received the Australian Leadership Award in 2013 and the Victoria Ambassador Award for Young Person of the Year. Outside of his professional commitments, he plays the first violin professionally and teaches various musical instruments to community members.

Strength in Mind: Enhancing Athletic Performance Through Applied Sports Psychology in Malaysia

Abstract:

Athletic performance is influenced by many factors, including physical, tactical, technical, and psychological components. Among these, psychological factors frequently serve as the tipping point that determines success or failure in competition. Research by Kuan (2022) demonstrated that mental ability can account for over fifty percent of an athlete's success in competitive settings. Mental toughness, a term often cited by athletes, coaches, and applied sports psychologists, emerges as a critical psychological trait correlated with performance outcomes in elite sports.This presentation offers a comprehensive examination of mental toughness, exploring its fundamental concepts, theoretical frameworks, underlying mechanisms, and empirical research, alongside practical applications within the context of Malaysian sports. The discussion begins with an engaging overview that contextualizes the role of sport psychology in enhancing athletic performance. Coaches and practitioners will gain access to a theoretical model designed to guide interventions aimed at fostering mental toughness in athletes. The presentation is organised into four key sections: the importance of sport psychology in applied settings, contemporary research findings, the interplay between self-efficacy and other psychological variables on marginal gains, and applied sports psychology initiatives in Malaysia settings. The primary contribution of this presentation lies in the practical guidelines provided to assist athletes and coaches in implementing sport psychology strategies, ultimately enhancing performance outcomes. By bridging theory and practice, this work aims to cultivate a deeper understanding of applied sports psychology, empowering Malaysian athletes and coaches to achieve greater success in sports.

Please do not bring food into the Main Hall (DKC). Thank you for your kind cooperation.

ABSTRACTS

Oral Presentations

0-1-1

Linear Relationship of Transtheoretical Model and Physical Activity and Leisure Motivation Scale with Amount of Physical Activity among Universiti Malaysia Sabah Employees

Aizuddin Hidrus[1,2], Yee Cheng Kueh[2], Garry Kuan[3], Syed Sharizman Syed Abdul Rahim[1], Mohammad Saffree Jeffree[1], Abdul Rahman Ramdzan[1]
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Abstract

Understanding the factors that influence physical activity (PA) is critical for promoting health and well-being, particularly among working adults. This study explores the linear relationship between the Transtheoretical Model (TTM) constructs and Physical Activity and Leisure Motivation Scale (PALMS) with the amount of physical activity performed by employees at Universiti Malaysia Sabah, which later could provide the actionable insights for designing targeted interventions to enhance physical activity levels in this population.A cross-sectional study design and a self-administered questionnaire were applied to recruit the participants. Multiple linear regression analysis has been carried out to obtain the final regression model.Out of 300 participants, 158 (52.7%) were male, and most of them were Bumiputera Sabah, 271 (90.3%). Findings showed that cognitive processes of change, pros-decisional balance, self-efficacy, and appearance of PALMS were significantly associated with PA amount. The coefficient of determination, r2, was 0.113, indicating that 11.3% of the variation in PA amount is explained by cognitive processes of change, pros-decisional balance, self-efficacy, and appearance of PALMS.The findings underscore the significance of cognitive processes of change, pros-decisional balance, self-efficacy, and appearance-related motives (PALMS) in explaining PA levels, consistent with the TTM (Prochaska & DiClemente, 1983) and motivation-focused frameworks like PALMS (Molanorouzi et al., 2014). These results reinforce the role of psychological and motivational factors in shaping health behaviours. Future studies should investigate other potential influences of physical activity such as environmental, social, or cultural factors. Moreover, the involvement of a more diverse population, including employees from different sectors or regions would be a better study to be done in the future. This study underscores the crucial role of cognitive processes, decisional balance, self-efficacy, and appearance motivation in shaping PA among UMS employees. These findings provide a foundation for designing evidence-based interventions to foster healthier lifestyles.

0-1-2

Exploring Mindfulness, Happiness and Mental Health among Teacher Trainees

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Abstract

Introduction: The demands of the teaching profession require both physical and mental resilience, particularly in today's educational landscape. Teacher trainees face significant academic and personal challenges that can adversely affect their overall well-being.

Objectives: This study aims to examine mindfulness, happiness, and mental health among teacher trainees, focusing on various demographic factors such as gender, age, and ethnicity.

Methods: A total of 290 teacher trainees (196 females and 94 males) aged 19 to 23 from multiple campuses in Malaysia participated. The Mindful Attention Awareness Scale (MAAS), Subjective Happiness Scale (SHS), and General Health Questionnaire (GHQ-12) were used to assess their levels of mindfulness, happiness, and mental health. Data were analysed using SPSS version 25 through descriptive statistics, independent t-tests, and one-way ANOVA.

Results: The analysis revealed significant differences in mindfulness and mental health across genders, with females reporting higher stress and lower self-esteem than males. There were also notable differences in mindfulness, happiness, and mental health across various age groups and ethnicities, suggesting that psychological traits evolve with age and are influenced by cultural practices.

Conclusions: These findings underscore the importance of developing targeted interventions, such as mindfulness training programs, to enhance well-being among teacher trainees in Malaysia.

Keywords: mindfulness, happiness, mental health, teacher trainees, educational psychology.

0-1-3

The Effect of Acute Table Tennis Intervention with Different Cognitive Load in Children with Attention Deficit Hyperactivity Disorder (ADHD)

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Abstract
Attention-Deficit/Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by inattention, hyperactivity, and impulsivity, which often impairs executive functions such as inhibitory control, attention, and working memory. Recent studies suggest that physical activity, particularly exercises with varying cognitive loads, can serve as an adjunctive intervention to improve cognitive deficits in children with ADHD. Open skill exercises (OSE), which involve higher cognitive load compared to closed skill exercises (CSE), have shown greater effectiveness in improving cognitive performance. This study suggests that the intensity of cognitive load is a critical factor in enhancing cognitive function. Objective: This study aimed to examine the acute effects of table tennis interventions with varying cognitive load intensities on cognitive function and event-related potentials (ERP) in children with ADHD. Methods: Nine children with ADHD (aged 8–12) participated in three experimental conditions: (1) a control session (30 minutes of video watching), (2) a low cognitive load session (LCL, moderate-intensity table tennis), and (3) a high cognitive load session (HCL, moderate-intensity two-color table tennis). Exercise intensity was maintained at 60–65% of heart rate reserve (HRR), and task-switching cognitive tests and ERP data were collected immediately following each intervention. Results: This study demonstrated that HCL sessions significantly improved accuracy in mixed conditions of the global switch effect compared to LCL and control sessions However, no significant differences were observed in ERP measures (P3 amplitude and latency). Conclusion: These findings highlight the potential of high cognitive load interventions to enhance cognitive performance in children with ADHD and emphasize the importance of cognitive load as a key factor in intervention design.
Keywords: Cognitive Function, Physical Activity, Exercise Intervention, EEG, ERP.

0-1-4

Psychological Performance and Behavioural Patterns Among Sarawak Sukma Athletes

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Abstract
This study aimed to understand the self-esteem, grit, resilience and perceived stress among Sarawak athletes during the 21st Malaysian Games 2024. There were 89 participants comprised of 35 male and 54 female with a mean age of 18. Self-esteem was measured using Rosenberg Self-Esteem Scale, grit using Short Grit Scale, resilience using the Brief Resilience Scale and stress using the Malaysian Perceived Stress Scale. Descriptive analysis, independent-samples t-test and one-way ANOVA were utilised. The results revealed no significant gender differences in self-esteem, grit and resilience, while females reported significantly higher stress level than male with $p = 0.019$. In addition, no significant differences were found across age groups for any variables. Results indicated that higher self-esteem, consistency of interest, perseverance of effort, and grit were more strongly associated with effective stress management than resilience. These findings suggest that intervention in enhancing self-esteem and grit could improve athletes' ability to manage stress effectively. Future studies should investigate targeted strategies to foster these personality traits in athletic populations.
Keywords: Self-esteem, grit, resilience, perceived stress, athletes

0-1-5

Effect of Different Intensities of Acute Exercise Combined with Caffeine on Executive Function and Mood in Young Adult

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Abstract

Introduction: Enhancing executive function and improving mood in young adults are critical areas of focus. Previous studies have demonstrated that acute exercise combined with caffeine intake is more effective in improving both executive function and mood compared to either intervention alone. Recent findings suggest that the effects of acute exercise on these outcomes may vary based on exercise intensity. Objectives: Therefore, the present study aimed to examine the effects of different intensities of acute exercise combined with caffeine on executive function and mood in young adults. Methods: A total of 22 young adults (9 males, mean age = 20.68 ± 1.13 years) were recruited in the present study. Participants completed four sessions in random order: 30%, 50%, and 80% HRR (heart rate reserve) as well as a control session. Executive function and mood were assessed using the Tower of London task and the Profile of Mood States, respectively. Results: The results indicated that the moderate-intensity (50% HRR) session provided the greatest benefits for two key components of executive function: planning and working memory. However, no significant effects of acute exercise combined with caffeine were observed on inhibitory control or problem-solving speed. Regarding mood, the low-intensity (30% HRR) session produced the most substantial improvements in total mood disturbance and positive mood, while both low- and moderate-intensity sessions effectively reduced negative mood scores. Conclusion: Moderate-intensity acute exercise combined with caffeine is the most effective strategy for enhancing executive function, whereas low-intensity acute exercise combined with caffeine is optimal for improving mood.

Keywords: executive function, mood, exercise, caffeine, intensity

0-2-1

Undergraduate-athletes' Motivation and Identity in Academics and Sports

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Abstract

Introducation: Undergraduate-athletes face the unique challenge of balancing the demands of academic pursuits with the training and competitive schedules of their chosen sport which can significantly impact their motivation, academic performance and overall well-being. Objectives: This is a quantitative approach in understanding undergraduate-athletes' motivation and identity within both academic and sports pursuits in the Institute of Teacher Education Malaysia. Methods: The Student Athletes' Motivation Toward Sports and Academics Questionnaire and Academic by Joy Gaston Gayles (2005) and Athletic Identity Scale (Mariya Yukhymenko, 2014) were used to measure 145 undergraduates-athletes (75 males, 70 females) across 3 age groups of 18 - 20, 21 - 23 and 24 - 25 years old in terms of their motivation and identity towards academics and sports. Descriptive analysis, independent sample t_x0002_test,one way ANOVA and two way ANOVA were conducted. Results: The independent sample t-test revealed that there were no significant difference between gender for academic motivation, p = .65, student athletic motivation, p = .90, career athletic motivation p = .48 and academic identity, p = .78 and athletic identity, p = .61. Besides, the one-way ANOVA revealed that there was no statistically significant difference between the three age groups for Academic Motivation, p = 0.364; Student Athletic Motivation, p = 0.344; Career Athletic Motivation p = 0.437; Academic Identity, p = 0.410 and Athletic Identity p = 0.208. Wheres, for the two-way ANOVA there was no significant main effect of gender on academic motivation, student athletic motivation, career athletic motivation, academic identity and athletic identity with p > .05. Next, there was no significant main effect of age groups on academic motivation, student athletic motivation, career athletic motivation, academic identity and athletic identity with p > .05*. Lastly, there was no significant interaction between gender and age groups on *academic motivation, student athletic motivation, career athletic motivation, academic identity and athletic identity with p > .05. Conclusion: The findings indicated that supportive and nurturing initiatives by adopting cooperative learning based on similar abilities and goals can help the undergraduate- athletes to stay committed to both their academic and athletic endeavour.

Keywords: Student athletes, motivation, academic

The Relationship Between Motivations for Using YouTube Sports Content, Intention to Use, Technology Acceptance and Sports Participation Among Adults in Their 20s

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Abstract
Objectives: The purpose of this study is to verify the relationship between motivation for using YouTube sports content, intention to use, technology acceptance, and sports participation among adults in their 20s. Methods: To achieve this objective, an online and offline survey was conducted among adults in their 20s who have experience watching YouTube sports content. The questionnaire assessed usage motivation, perceived ease of use, perceived usefulness, usage attitude, intention to use, and sports participation. Statistical analysis was conducted using SPSS version 28.0, employing factor analysis, correlation analysis, multiple regression analysis, and one-way analysis of variance. Results: First, the correlation between motivation and intention to use YouTube sports content, technology acceptance, and sports participation was found to be significant. Second, among the sub-factors of motivation for using YouTube sports content, information-seeking motivation, entertainment-seeking motivation, and vicarious satisfaction motivation were identified as having a significant effect on perceived usability, perceived usefulness, intention to use, and attitude toward use. Third, it was confirmed that adults in their 20s who use YouTube sports content two to three times a week show the highest levels of sports participation. Conclusions: The research confirmed that information-seeking and vicarious satisfaction motivation are the most important variables among the motives for using YouTube sports content. Therefore, developing content that satisfies these motivations would be beneficial.
Keywords: YouTube Sports Content, Usage Motivation, Technology Acceptance, Intention to Use, Sports Participation, Adults in Their 20s

Validation of the Korean Athlete Doping Behavior Scale (ADBS-K) for use in Sport Contexts: A Test of the Sport Drug Control Model

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Abstract
Objective: The purpose of the current study is to develop a doping behavior scale for Korean athletes based on the sport drug control model (SDCM), and to evaluate its reliability and validity. Methods: The study involved the translation and adaptation of the World Anti-Doping Agency's Athlete Doping Behavior Scale (ADBS) into Korean. To validate the Korean version of the ADBS, a sample of 500 athletes aged 18 years and older in individual and team sports (comprising college and professional level) registered with the Korean Sport and Olympic Committee was selected as the study participants. Of these, 454 completed the scale and were included in the data analysis. To verify the reliability and validity of the ADBS, descriptive statistics, McDonald's omega coefficient, composite reliability, confirmatory factor analysis, correlation analysis, and structural equation modeling were employed. Results: The findings indicated that the ADBS-K consists of 12 sub-factors and 38 items with verifying reliability and validity. The structural equation model analysis of the scale revealed that the threat of deterrence appraisal, morality, efficacy and perceived behavioral control, social and broad sport context, and personal and psychological factors exert a significant influence on susceptibility, which in turn exerts a significant influence on doping behavior. Conclusions: These findings validate of the ADBS-K for Korean athlete and identify the usefulness of it to understand influences of the SDCM on doping behavior. Nevertheless, there is a need to survey athletes representing a broader range of competition levels and cross-cultural research to test applicability of the ADBS based on the SDCM to other populations of athletes.
Keywords: Athlete doping behavior scale, Doping, Sport drug control model

0-2-4

Review of Literature Based on Bibliometric and Visualization Analysis of Research Trends in Music in Sport Applications

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Abstract
Introduction: Understanding the advancements, key areas, and trends in applied research related to the application of music and sports is important for evaluating scientific contributions and impacts across countries. Objective: This study aimed to conduct a bibliometric analysis to identify and visualise research trends in music applications within the sports domain from 2004 to 2024. Method: Using bibliometric online analysis tools, CiteSpace and VOSviewer, we analysed relevant literature to explore topic distribution and interrelationships. Methods such as keyword co-occurrence mapping, clustering, timeline mapping, burst word mapping, and co-citation analysis were employed. Results: The analysis revealed that future research should focus on the physiological and psychological effects of personalized music programs across various exercise stages. Integrating biomechanics, neuroscience, and other quantitative metrics can enhance understanding of music's impact on physical performance. Discussion: The findings indicated that significant potential for interdisciplinary collaboration in applied music research within sports. A multidisciplinary approach that includes perspectives from psychology, physiology, biomechanics, and artificial intelligence can drive innovative research methodologies and theoretical frameworks. Conclusion: This bibliometric review highlighted the evolving research landscape in music and sports, emphasising the need for comprehensive investigations into personalised music interventions and the importance of interdisciplinary research in advancing this field.
Keywords: Music, Sport, Bibliometrics, Visualization Analysis, Cluster Analysis.

0-2-5

The Influence of Music on Athletic Performance: A Systematic Review

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Abstract
Background: The influence of music on athletic performance has gained significant attention in recent years, primarily due to its potential to enhance motivation, focus, and physical output during exercise and competitive activities. Objective: This systematic review aims to examine the existing literature on the relationship between music and athletic performance, focusing on various musical elements such as tempo, genre, and personal preference. Methods: We conducted a comprehensive search of scholarly articles from reputable databases, including Scopus and Web of Science, focusing specifically on studies published between 2022 and 2024. The study followed the PRISMA framework for systematic reviews. A total of 25 articles were identified and analysed, representing the final primary data set. Results: The findings were organised into three main themes: (1) The influence of music on athletic performance and psychological states; (2) The relationship between mental fatigue and cognitive aspects of sport performance; (3) The role of music in physical recovery and performance optimisation in sports. Discussion: The influence of music varies depending on several factors, including the type of sport, individual musical preferences, and the specific context of the activity. While music can be an effective tool for enhancing athletic performance, optimal benefits are best achieved when personal and contextual variables are considered. Conclusion: Future research should focus on exploring the interplay of these variables further and investigating the long-term effects of music on athletic performance, as this could lead to more tailored interventions in sports and exercise settings.
Keywords: Music, athletic performance, music intervention, sports, exercise.

The Effect of the Traditional Game of Tug of War on Arm and Leg Muscle Strength in Students with Visual Impairments at Yapetra SLB

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Abstract

The purpose of this study was to see the effect of the tug-of-war game on the strength of the arm muscles and leg muscles of students with disabilities at SLB Yapetra. This study is an experimental study, a research method used to find the effect of certain treatments on others in controlled conditions. The population in this study was 10 Low vision special needs children. The sample in this study was a total sampling of 10 people. The research data were obtained through pretest and posttest tests. It was found that there was a change in arm muscle strength where the average increased after a tug of war training with an average of 25.28 kg (7.34) increasing to 29.94 kg (8.28) with a change of 4.66 kg. The analysis results used the Paired T-test with a confidence level (α = 0.05). Based on this test, the results were obtained with a value of P = 0.000 (p <0.05), this indicates that there is a significant difference in the average between before and after training, so Ho is rejected. This means that H1 is accepted so that it can be concluded that there is a significant effect of the tug of war game on the strength of students' arm muscles or in other words the tug of war game increases the strength of the arm muscles of students with Low vision Disabilities at SLB Yapetra. And changes in leg muscle strength after a routine tug-of-war training, where the average increased with an average of 28.23 kg (8.57) increasing to 34.35 kg (8.17) with a change of 6.12 kg. The analysis results using the Paired T-test with a confidence level (α = 0.05). Based on this test, the results obtained with a value of P = 0.000 (p <0.05), show that there is a significant difference in the average between before and after the tug-of-war game training on the strength of the leg muscles of students with low vision Disabilities at SLB Yapetra, so Ho is rejected. This means that H1 is accepted, so it can be concluded that there is a significant effect of the tug-of-war game on the strength of the leg muscles of students with Low vision Disabilities at SLB Yapetra.

Keywords: Arm muscles, Leg muscles, Low vision

Training of Young Volleyball Players in Henan Province Based on the LTAD Model

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Abstract

Background: Over the past 60 years, Henan province's volleyball has continuously developed, producing a substantial number of talented young players who have achieved success in domestic and international competitions. Objective: This study aims to investigate the current training practices for youth volleyball players in Henan Province, using the Long-Term Athlete Development (LTAD) model as a framework for analysis. Methods: Employing a variety of sports science research methodologies, including literature review, questionnaire surveys, mathematical statistics, and logical analysis, this research examine the current status of youth volleyball training in Henan Province. The study interprets the LTAD model and conducts comparative analyses to highlight differences and similarities between current training practices and the LTAD approach. Results: The findings indicated that the overall training status of reserve talents for young volleyball players in Henan Province is commendable. By integrating the LTAD model, the study proposes an optimisation plan that emphasises development tailored to the specific training stages of young athletes. Recommendations include a focus on foundational athletic skills, the adoption of diverse training methods, collaboration between social clubs and athlete families, and the establishment of talent development bases across various regions in Henan, specifically in Zhengzhou, Luoyang, Zhoukou, Xinxiang, and Kaifeng. Additionally, the research promotes the integration of resources by optimizing coaching philosophies, organising comprehensive coaching training at all levels, and facilitating an exchange platform for coaches to enhance the quality of training through collaboration with high-level domestic and foreign coaches within the education and sports systems. Conclusion: The study had provided a theoretical foundation for improving the training of young volleyball players in Henan Province by leveraging the LTAD model. The proposed strategies aim to foster the growth of well-rounded athletes equipped for future competitive success.

Keywords: Henan Province Volleyball, LTAD Model, Youth Volleyball, Volleyball Reserve Talents, Athletes

0-3-3

Validity and Reliability of the Chinese Version of the Pictorial Scale of Perceived Movement Skill Competence for Young Children (PMSC)

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Abstract
Introduction: The prevalence of low physical activity (PA) levels among children remains a significant concern in public health. Perceived competence plays a crucial role as a mediator between children's actual fundamental motor skills (FMS) competence and their engagement in physical activities. Both actual and perceived motor competence substantially contribute to the overall health of young children. Objectives: This study aims to validate the Chinese version of the Pictorial Scale of Perceived Movement Skill Competence for Young Children (PMSC), which aligns with the skills assessed in the Test of Gross Motor Development - 3rd Edition (TGMD-3), and to establish its reliability among Chinese preschool children. Methods: A cross-sectional study was conducted in three kindergartens in Guangdong, China. Preschool children were recruited using a random cluster sampling method, and written informed consent was obtained from parents or caregivers after they were briefed on the study's purpose. The English version of the PMSC was translated into Chinese using a standard forward-backward translation process. The PMSC comprises two factors: ball skills (7 items) and locomotor skills (6 items). Statistical analyses, including Confirmatory Factor Analysis (CFA), composite reliability (CR), and average variance extracted (AVE), were conducted using SPSS Version 27.0 and Amos 26.0, with a total of 261 preschool children participated in the study (149 boys, 112 girls). Results: The PMSC demonstrated strong reliability and validity, with a Cronbach's alpha of 0.949, and 0.938 respectively. Goodness-of-fit indices indicated that the measurement model fit the data well (CFI = 0.965; TLI = 0.956; SRMR = 0.0343; RMSEA = 0.077). Composite reliability values were also acceptable (0.928 for ball skills and 0.922 for locomotor skills). Discussion: The findings affirm the reliability and validity of the Chinese adaptation of the PMSC for assessing perceived competence in ball skills and locomotor skills among preschool children. Although the study had methodological limitations, such as the absence of test-retest reliability, the results contribute valuable insights for future research.Conclusions: The validated Chinese version of the PMSC provides researchers with a robust tool for comprehensively assessing preschool children's ball and locomotor skills, thus facilitating targeted interventions to promote healthier physical activity habits and improve overall PA levels.
Keywords: Physical activity; PMSC; Chinese preschool children; ball skills; locomotor skills.

0-3-4

The Effect of Listening to music with Different Tempos on Muscle Strength and Endurance During Weight Training

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Abstract
This research aimed to study and compare the effects of listening to music with different tempos on muscle strength and endurance during weight training. The sample consisted of 12 third-year students in the sport science program, Faculty of Education, Silpakorn University, during the academic year 2024. These students had completed the course 459341 Weight Training. The study employed a counterbalanced design, rotating the participants througth all three different music tempo conditions in experiment. This study measured muscle strength (80-85% of 1RM) and endurance (50-55% of 1RM) during arm curl and leg press exercise. Data were analyzed using one-way repeated measures ANOVA and Bonferroni post hoc pairwise comparisons at a significance level of .05.
Research Findings
1.For muscle strength exercise in the arm curl and leg press, the highest average scores were achieved while listening to music at 130-150 bpm, showing statistically significant differences compared to not listening to music and listening to music at 90-110 bpm ($p < .05$).
2.For endurance weight training, the arm curl yielded the highest average scores when listening to music at 130-150 bpm, whith significant differences compared to not listening to music and listening to music at 90-110 bpm ($p < .05$). However, not significant differences were found in term of leg press exercise. Nevertheless, listening to music at 130-150 bpm generally enhanced exercise performance better than not listening to music and listening to music at 90-110 bpm.
Keywords: Music Tempo 90-110 bpm, Music Tempo 130-150 bpm, Muscle Strength, Muscle Endurance

0-3-5

Breaking the Barrier: Exercise Preferences and Motivational Factors in Stressed Chinese Secondary School Students

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Abstract
Background This research aims to explore the motivations, barriers, and preferences related to exercise among Chinese secondary school students who experience psychological stress, with the ultimate goal of developing a tailored exercise module to help alleviate their stress. Methods Semi-structured interviews were conducted with 29 Chinese adolescent students experiencing psychological stress. A deductive analysis was used to identify the motivations, barriers, and personalized preferences of these students regarding exercise choices. To ensure the objectivity and comprehensiveness of the findings, the data were triangulated to minimize research bias. Results The results revealed seven key themes that contributed to students' motivation to engage in exercise: health, encouragement and supervision, body shaping, inspiration, academic learning and examination, fun, and exercise experience. Five themes were identified as barriers to physical activity: academic pressure, negative exercise experiences, lack of motivation, illness, and weather. Participants tended to choose moderate to vigorous intensity group exercises lasting 30 to 60 minutes, 3 to 5 times per week. Girls often refrained from exercising due to academic pressures, while boys cited illness as a common reason for non-participation. In terms of motivation, girls generally required more encouragement, whereas boys needed greater inspiration. Conclusion A total of seven themes of motivational factors for exercise and five themes of barriers to exercise were identified in this study. Based on these needs we will develop an exercise intervention module for Chinese adolescents with psychological stress.
Keywords: Motivations; Barriers; Preferences; Exercise; Students; Psychological Stress

0-4-1

Music in Rhythmic Gymnastics: A Literature Review

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Abstract
Introduction: Rhythmic gymnastics is a unique sport whereby it uses a handheld apparatus and involves music to choreograph a routine. This study is to investigate how music influences the artistry component in choreographed rhythmic gymnastics routine.
Methods: A literature review was carried out which includes studies from 2018 to 2024. Out of the 240 studies reviewed, only 7 studies met the inclusion criteria which include music in rhythmic gymnastics and the evolution of music selection that accompanied rhythmic gymnastics routine that had changed over time. The present study states the impact of synchronous music and asynchronous music using the six fundamental parameters which is phrasing, tempo and rhythm, accent, dynamic, and pitch direction. Lastly, the usage of music in training sessions can enhance the artistic components in rhythmic gymnastics routines.
Results: The review found that music is not served just a tool to accompany rhythmic gymnastics choreographed routine but as a critical component in enhancing its artistic expression. The music used in rhythmic gymnastics routine can range from a piano piece to symphonies and popular music in different era. Ballet methods are often integrated into rhythmic gymnastics to enhance the gymnasts' grace, flexibility, body routine techniques to help elevate the aesthetic performance of their routines. However, the determination of synchronous and asynchronous music with its six fundamental parameters of phrasing, tempo and rhythm, accent, dynamic, and pitch direction also played a fundamental role in the enhancement of rhythmic gymnastics performance routine which represents the main focus of the study.
Conclusion: In rhythmic gymnastics, the identification of synchronous and asynchronous music are crucial elements that can enriches the technical execution, artistic interpretation, and emotional bond between the gymnast and the audience. Moreover, it transforms the routine from a sequence of athletic movements into a compelling artistic performance, making music an inseparable part of the sport's core identity.
Keywords: rhythmic gymnastics, music, synchronous, asynchronous

0-4-2

Trainee Teacher's Perceptions of Anxiety and Benefits during Teaching Practicum

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Abstract

Introduction: Teaching practicum is a crucial phase for trainee teachers, often accompanied by high levels of anxiety which may affect their performance and professional growth. Objective: This study aimed to understand the extent of anxiety experienced by trainee teachers from different academic backgrounds during their teaching practicum and determine if their anxiety levels evolve over the course of their practical training. Methods: The participants comprised of 120 trainee teachers (49 males, 71 females) aged between 21 and 30 years who had completed their practicum. The study utilised an adapted version of the Student Teacher Anxiety Scale (STAS). The adapted STAS consisted of 33 items across six dimensions: lesson planning (5 items), classroom management (9 items), evaluation (8 items), benefits and utility (5 items), context (3 items), and satisfaction (3 items). Participants rated their anxiety levels on a 5-point Likert scale ranging from 1 (strongly disagree) to 5(strongly agree). The internal consistency revealed a high Cronbach's Alpha coefficients between 0.89 and 0.95. Data were analyzed using independent sample t-test, one-way ANOVA, two-way ANOVA and correlation analysis. Results: Results of the t-test showed no significant difference in anxiety levels between genders across all dimensions, $p > .05$. In addition, th one-way ANOVA revealed no statistically significant difference between age-groups for lesson planning, classroom management and evaluation anxiety, $p > .05$. However, the two-way ANOVA identified a significant interaction between gender and age for benefits and utility, $p < .0$ but no significant main effects for other dimensions. The correlation analysis showed low positive correlations between lesson planning and classroom management, $r = .426$, $p < .01$ and between lesson planning and evaluation, $r = .307$, $p < .01$. Conclusion: The findings highlighted that trainee teacher anxiety levels are consistent across gender and age groups but reveal significant correlation between dimensions of anxiety and specific interactions for benefits and utility. These insights can guide interventions to address anxiety and nhance the teaching practicum experience.

Keywords: Teaching Practicum, Teacher Anxiety, Student Teacher Anxiety Scale

0-4-3

Trainee Teacher's Perceptions of Anxiety and Benefits during Teaching Practicum

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Abstract

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Keywords: Teaching Practicum, Teacher Anxiety, Student Teacher Anxiety Scale

The Impact of TGFU on Motivation for 14 Years Old Students During Training Through MINI Handball Games

0-4-4

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The purpose of this study is to investigate how the Teaching Games for Understanding (TGfU) approach affects students' motivation during handball training in physical education classes. With intact sampling and a quasi-experimental design, the study includes 31 students in an experimental group that was instructed utilizing the TGfU approach. Over the intervention of five weeks of physical education sessions, all of the students trained using the TGfU approach through small handball games. Through the use of handball skills, such as passing and catching, dribbling, blocking, feinting, and shooting, the mini handball games emphasize both offensive and defensive tactics. Before and after the intervention, the motivation levels of all 14-year-old secondary school pupils were assessed using the Situational Motivation Scale (SIMS) questionnaire. Tests (pre and post test) and gender differences in the expression of Identified Regulation, external regulation, Amotivation, and Intrinsic Motivation were examined using one way Manova. When comparing the pre- and post-test results for motivation, one way Manova found that the TGfU approach had a significant impact on Intrinsic Motivation and Identified Regulation. Additionally, a post-test comparison of the mean scores for Identified Regulation and Intrinsic Motivation revealed an improvement in self-determined motivational forms by following handball training. However, a one-way Manova analysis revealed no discernible difference between the external regulation and Amotivation tests. Nevertheless, when compared to the pre-test, the usage of TGfU resulted in a lower mean score for external regulation and Amotivation in the post-test. This study also demonstrated a positive effect on self-determined types of motivation. Additionally, using the subscales for Intrinsic Motivation, Identified Regulation, External Regulation and Amotivation as dependent variables, the one-way Monova results demonstrated that there are no discernible gender differences in any of the motivational factors. This study shows that TGfU is a successful approach for raising students' motivation, particularly in self-determined kinds of motivation, by utilizing mini handball games in an engaging and interactive training session. Furthermore, students of all genders can become more motivated by using the TGfU approach during handball training in physical education classes.

Keywords: Impact , TGfU, Self-Determination, Motivation, Handball Games

A Systematic Review of Artificial Intelligence theoretical basis in Sports

0-4-5

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Abstract:

Introduction: This review summarises the future development potential of artificial intelligence (AI) in sports. The article introduces the technological development and application of AI in sports, including data mining and algorithms. Then, future research directions for AI in sports are proposed. Methods: During the literature reviewing stage, a comprehensive screening process was implemented, strictly adhering to the established exclusion and inclusion criteria. A total of 763 articles were searched within the defined scope, ultimately culminating in the selection of 15 articles. According to the research plan, the review process is structured into three sequential stages, namely planning, execution, and interpretation of results. Results: In recent years, the realm of sports has seen a significant improvement, made possible by AI with the introduction and implementation of various technical approaches. These approaches include, but are not limited to, Machine vision (MV), Natural language processin(NLP), Long short-term memory(LSTM), Computational intelligence(CI), Virtual reality(VR), Augmented reality(AR), Mixed reality(MR), Speech-Based Human-Machine Interaction(SBHMI), and Gesture-Based Human-Machine Interaction(GBHMI), etc. The utilising these intelligent technologies in AI has enabled the creation of virtual scenes and characters, language interaction, correction of body posture, training method guidance, provision of competition referees, and the development of sports diet plans. These innovations have revolutionised the sporting industry, resulting in improved sporting performance, better quality training, and the overall experience for athletes and sports enthusiasts alike. Conclusion: This review concludes by emphasising the technical support and practical application of AI in sports integration, which is an essential theoretical foundation for AI sports to establish its ecological environment.

Keywords: Systematic Review; Artificial Intelligence; Sports

0-5-1

A Confirmatory Study of the Chinese Version of the Compulsive Exercise Test Among Chinese Amateur Endurance Athletes

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Abstract

Background: Compulsive exercise refers to an overwhelming and uncontrollable urge to engage in physical activity, often seen in individuals with eating disorders. The Compulsive Exercise Test (CET) is the first scale specifically designed to assess problematic exercise behaviours associated with eating disorders. It is consisting of 24 items rated on a six-point Likert scale.

Objective: The objective of this study is to validate the Chinese version of the CET (CET-C) among amateur endurance athletes, and to ensure that the instrument is culturally appropriate and effective for identifying compulsive exercise behaviours among the Chinese in China.

Methods: 732 amateur endurance athletes volunteered and participated in the study. They were cyclists, runners, and triathletes, from 24 cities across China. The CET was translated into Chinese using standard forward-backward translation methods by five sports science experts. Confirmatory Factor Analysis (CFA) was conducted using Mplus 8.0 to examine the structural validity of the Chinese version (CET-C), along with assessments of reliability and convergent validity.

Results: The analysis demonstrated that the six-factor model of the CET-C provided an adequate fit to the data, as indicated by the fit indices (CFI = 0.886, TLI = 0.872, RMSEA = 0.066 [90% CI: 0.062, 0.071], SRMR = 0.047). All items exhibited significant factor loadings exceeding 0.40. The CET-C displayed high internal consistency reliability, with Cronbach's alpha ranged from 0.93 to 0.94 and Composite Reliability ranged from 0.93 to 0.94.

Conclusion: The CET-C is a valid and reliable instrument for assessing compulsive exercise among Chinese amateur endurance athletes, facilitating the early identification of compulsive exercise behaviours and promoting effective interventions to enhance athletic performance and health.

Keywords: Compulsive exercise, Endurance athletes, Confirmatory factor analysis

0-5-2

Physical Activites' Programme on Health Status Among Urban Elder Adults

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Abstract

Introduction: Health profile is essential for elder adults after battle life of with COVID19 and daily routine. Objectives: To obtain elder adult's health profile. Methodology: Performed physical activities programmes'-- "Cyclic" and "APecR" after 4 continuous years cross sectional which, managed to figure out overall samples' anthropometry (psycho-motor and psychological). Self-recorded data with descriptive statistic results. Training heart rate reached 70%. Samples: 13 samples aged 50's to 60's voluntarily involved and observed from 2018 to 2022. Parameters attempted: Physical activities, Blood Pressure (BP), Body Weight, Cholesterol Level, High Density Lipid (HDL), Uric Acid, SpO2, Sleeping Hours, and Awaken times daily and psychology aspects lastly justified resulted with their medical reports. Results: Weight Loss showed mild changes, BP enhanced Excellence level (120/80) – from 39% to 58%, Normal (130/85) - 29% to 39%%, Normal Systolic (140/90) - 7% to 22% and mild hypertension 2.48% decreased to 0.40%. An hourly "Cyclic" and / or "APecR" came to more than 10,000 footsteps per session. Average SpO2 was 98% regularly with 70% from July 2022 until December 2022. Where else, sleeping hours with mean of 6 hours throughout the last 3 consecutive years. Conclusion: Elder adults' psychological and anthropometry aspect gained. Contribution: Practices and maintenance of one's health status in auxiliary sport sciences by sports' extension agents. Recommendation: "Cyclic" and "APecR" programme as elder adults' alternative physical activities with contribution to exercise psychology, the body of knowledge.

Keywords: Health Profile, "Cyclic", "APecR", Effectiveness, & Exercise psychology

Cultural Factors in Body Dissatisfaction Among Female University Students: Beyond Weight-Centered Body Image

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Abstract

Body dissatisfaction plays a significant role in mental health and varies across cultural and ethnic contexts. Women from different ethnic backgrounds often display diverse attitudes toward body image, shaped by cultural traditions and religious practices. Malaysia, with its multicultural composition of Malay, Chinese, Indian, and indigenous populations, offers a unique setting for exploring these dynamics. This study examined ethnic differences in body and weight dissatisfaction among 200 female undergraduates at Universiti Sains Malaysia (Mean age = 19.37 years), focusing on how these differences influence attitudes toward eating disorders and the moderating role of cultural factors. The research employed validated instruments: the Body Shape Questionnaire (BSQ-34) for assessing body dissatisfaction, the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) for assessing cultural influences, and the Eating Attitudes Test (EAT-26) for assessing attitudes toward eating disorder. Additional demographic data, including BMI, ethnicity, and religious affiliation, were collected and analysed using correlation and regression methods. The findings showed that Chinese participants reported significantly higher body dissatisfaction than their Malay and Indian peers ($p < 0.05$). Body dissatisfaction was strongly associated with BMI ($r = 0.45$, $p < 0.01$) and served as a significant predictor of eating disorder attitudes ($\beta = 0.32$, $p < 0.01$). The study highlights the importance of culturally sensitive interventions to improve body image and reduce eating disorder risks. Future research should adopt longitudinal designs and investigate additional factors, such as media influence, family dynamics, and peer relationships, to provide a more comprehensive understanding of body dissatisfaction among diverse populations. These insights can guide tailored strategies to enhance mental health outcomes for women from varied ethnic backgrounds.

Keywords: Body dissatisfaction, Cultural factors, Female university student, Eating disorders

The Effect of Active Breaks Among Undergraduate Students

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Abstract

Introduction: The prevalence of overweight and obesity rates are rising throughout Asia, with Malaysia being at the forefront for the past years. Objectives: The lack of recent data on young people, particularly university students in Malaysia has resulted in this study which sought to examine on the prevalence of overweight and obesity among university students and effect of physical activity active breaks at one public university in Sarawak, Malaysia. Methods: 48 university students (24 males and 24 females) aged 18 to 20 years-old were involved in the study. The health-related fitness test (HRFT) was administered while active breaks videos were used as an intervention tool. Descriptive analysis and paired sample t-test were used. Results: For the Body Mass Index (BMI), results revealed that the frequency of participants increased significantly from pre (52.1%) to post (75.0%) in the normal weight category. Besides, the frequency of the participants decreased from pre to post in the underweight (2.1% to 0.0%), overweight (20.8% to 14.6%) and obese (25.0% to 10.4%) categories. In terms of HRFT test, the frequency of participants increased from pre to post in superior fitness level (18.8% to 52.1%) and excellent fitness level (12.5% to 20.8%). Conversely, the participants' frequency declined from pre to post in the fit fitness level (31.2% to 16.7%), poor fitness level (37.5% to 10.4%). Moreover, paired sample t-test on overall HRFT. test revealed significant increase from pre to post-test in step test, $p = .002$, curl-ups, $p = .004$, and sit and reach, $p = .005$. Additionally, the paired sample t-test for HRFT test for pre and post-test based on groups showed significant increase in the intervention group, whereby there was significant increase from pre to post on step test, $p = .001$, push-ups, $p = .004$, curl-ups, $p = .011$, and sit and reach, $p = .001$. Discussion: The significant improvements in various fitness levels indicated that the intervention not only helped with weight management but also enhanced overall physical fitness. Conclusion: The study revealed important findings that can be applied to devise strategic interventions at improving the health and fitness of the university students.

Keywords: Physical Activity; Active Breaks; University; Students.

0-5-5

Comparing the Effects of Low-Intensity Slow Movement and Tonic Force Generation and Moderate-Intensity Resistance Exercise on Cognitive Flexibility in Older Adults: A Research Proposal

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Abstract

Background: Aging is frequently associated with a decline in executive function. Notably, a deterioration in cognitive flexibility can significantly impair older adults' capacity for independent living, negatively impacting daily life. Recent research has demonstrated that acute low-intensity resistance exercise with slow movements and tonic force generation can enhance executive function to a degree comparable to the effects of moderate to high-intensity resistance exercise. However, the specific effects of such exercise on cognitive flexibility remain underexplored. Objective: This study aims to compare the effects of low-intensity resistance exercise with slow movement and tonic force generation (LRE) and moderate-intensity resistance exercise (MRE) on cognitive flexibility in older adults. Methods: A between-subjects pretest-posttest comparisons design will be employed, recruiting 54 participants aged 65 or above. Participants will be randomly assigned to one of three groups: reading control group, LRE group (3 sets for 10 repetitions at 30% of 1-repetition maximum for eight muscle exercises; each movement performed at a speed of 3-second concentric, 3-second eccentric, and 1-second isometric, without rest between repetitions), or MRE group (3 sets for 10 repetitions at 60% of 1-repetition maximum for eight muscle exercises; each movement performed at a speed of 1-second concentric, 1-second eccentric, and a 1-second rest between repetitions). Before and after the intervention, participants' blood lactate levels will be measured. Subsequently, they will complete a task-switching task while electroencephalographic activity is assessed. Expected Results: Participants in the LRE group are expected to exhibit improvements in cognitive flexibility comparable to those in the MRE group. Additionally, these improvements are anticipated to exceed those demonstrated by the reading control group.

Keywords: executive function, task-switching, electroencephalography, acute exercise, aging

Psychometric Properties of the 10-item Athletic Mental Energy Scale (AMEs-10): Examination of Construct Validity, Reliabilities, Gender and Cross-Cultural Invariance

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Abstract
Recent research has employed the 6-factor, 18-item Athletic Mental Energy Scale (AMES) to investigate athlete's mental energy and its effects on athletes' cognition, behavior, and emotions. However, critiques have emerged regarding the conceptual redundancy and overlap of two factors within the AMES, as well as design flaws in the behavioral samples associated with each dimension. Consequently, the objective of the present study was to refine the AMES in a more concise format. In Study 1, a 5-factor version of the AMES was developed and subjected to analysis. Study 2 focused on assessing the test-retest reliability and measurement model of the 5-factor AMES. Study 3 investigated the gender invariance of the 5-factor AMES and explored its nomological validity. Finally, Study 4 examined the measurement invariance of the 5-factor AMES across three distinct cultural contexts. The findings indicated that the 5-factor, 10-item AMES demonstrated a satisfactory factorial structure, construct validity, test-retest reliability, a well-defined measurement model, as well as invariance across gender and culture. We recommend that future research utilize the 5-factor, 10-item AMES to explore its impact on athletes' psychological and physical responses in both field and laboratory environments. Additionally, we advocate for sports psychologists to employ this refined version of the AMES for consultation and psychological assessment purposes.
Keywords: measurement model, psychology of sports excellence, optimal psychological state, psychological testing and evaluation

The Effects of Volume-Matched Acute Resistance Exercise on Planning-Related Executive Function in Older Adults

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Abstract
Introduction: The rapid aging of the global population is driving the spread of brain diseases like Alzheimer's disease and dementia, prompting researchers to attempt to find an effective strategy to maintain or improve executive function. According to previous research, acute exercise has a positive effect on executive function (particularly planning), but this effect is modulated by many variables (e.g., intensity and time). In view of this, researchers have begun to realize that future research can simultaneously further integrate exercise intensity and duration (e.g., volume) for follow-up studies. Nonetheless, most previous studies have focused on aerobic exercise, while resistance exercise has been less investigated. Objectives: This study aims to explore the impact of volume-matched acute resistance exercise on planning-related executive function in older adults. Methods: A within-subjects design was employed, involving 36 older adults (mean age = 68.89 ± 5.53) participated in three volume-matched resistance exercise sessions [i.e., high-intensity session (75% 1-repetition maximum, 12 repetitions, 2 sets), moderate-intensity session (60% 1-repetition maximum, 10 repetitions, 3sets), low-intensity session (45% 1-repetition maximum, 10 repetitions, 2 sets)] and reading control session in a counterbalanced order. Planning was assessed immediately after each session via the Tower of London task (TOL). Results: All resistance exercise sessions were better than the reading control session in terms of the total correct scores and total move scores in the TOL task, and the moderate-intensity session was significantly better than the low-intensity session and high-intensity session. Conclusion: These findings suggest that, under volume-matched conditions, acute resistance exercise selectively influences planning-related executive functions in older adults. Specifically, moderate-intensity resistance exercise is most beneficial for executive function.

Keywords: aging, cognitive function, workload-matched, acute exercise, Tower of London task

0-6-3

The Innovative Multi-Teaching design: The impact of "optimism" and "senior sports service field" on college students' problem-solving attitudes

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Abstract
Introduction: Good physical education teaching design is crucial, especially for improving students' learning effectiveness. Objectives: This study aims to explore the effectiveness of innovative multi-teaching design on college students' problem-solving attitudes. The participants will be voluntary students in elective classes. Methodology: The study method adopted paired sample t-test and action research methods. (1) use the paired sample t-test to determine whether there is a difference between the pre-and post-test averages. The action research methods comprise observation records, participant evaluations, reflection worksheets, etc., and the data will undergo qualitative analysis to study the learning effectiveness of problem-solving attitudes in college students. Major Findings: The integration of multi-teaching design into sports psychology "optimism" and "senior sports field services" has greatly improved the difference between students' before and after learning. Discussion: The research results show that innovative multi-teaching design has a good learning effect on college students' problem-solving attitudes. Conclusion: Innovative multi-teaching design has higher learning effectiveness with a problem-solving attitude than general physical education classes. Conclusion: We suggest innovative and diverse teaching designs in the future to improve the learning effectiveness of college students' problem-solving attitudes through positive psychology "optimism" and " senior sports field services ".

0-6-4

Bibliometric Analysis of Sport Psychology in Athletes Using CiteSpace and VOSviewer: Evolution, Trends, and Hotspots

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Abstract
Introduction: Sports psychology has developed into a distinct discipline over the last two centuries, focusing on the psychological factors that affect athletic performance. Recent advancements in sports science, particularly in the areas of training, competition, and recovery, underscore the importance of psychological principles in enhancing performance outcomes among professional athletes. Objective: The objective of this research is to conduct a comprehensive bibliometric analysis of sports psychology literature from the past decade, using advanced information visualisation tools, CiteSpace and VOSviewer, to identify current research trends and hotspots, as well as to forecast future research directions. Method: This study examines multiple dimensions of the sports psychology field, focusing on publication patterns, institutional contributions, and thematic shifts. A total of 5,507 articles were retrieved from the Web of Science (WOS) database for analysis. Results: The findings indicated consistent increased in publications related to sports psychology, with the United States leading with 1,508 published manuscripts. Significant contributions have also emerged from the United Kingdom, Canada, Australia, and China. Prominent institutions such as the University of North Carolina, Florida State University, and University of Wisconsin ranked highly in research output. Additionally, research hotspots have increasingly centered on mental health, depressive symptoms, sleep disorders, and eating disorders. Discussion: The results provide valuable insights into the research dynamics within sports psychology, showcasing foundational knowledge and identifying potential collaborators and emerging areas for investigation. Conclusion: This bibliometric study highlights the evolving landscape of sports psychology research and establishes a framework for future studies to enhance the understanding of psychological factors influencing athletic performance.
Keywords: Sport Psychology; Athletes; Bibliometric Analysis.

The Impact of Student Athletes' Psychological Skills on Sports Coping and Failure Attribution

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Abstract

This study examined the influence of student athletes' psychological skills on sports coping and failure attribution. The study subjects were 11 sports, and a total of 260 subjects were conducted, including 192 high school students (73.8%) and 68 middle school students (26.2%). The results of the study showed that athletes' psychological skills affect sports coping and failure attribution. This shows that psychological skills are closely related to sports coping strategies, and that strengthening imagery, increasing self-confidence, and maintaining concentration are particularly important factors. In addition, it was confirmed that maladaptive coping strategies such as avoidance and detachment need to be minimized. In addition, it shows that individuals with excellent psychological skills are less likely to experience failure attribution factors. These results can provide practical grounds for the development of psychological training programs for sports athletes, emphasize the importance of psychological factors, and suggest the need for real-life training and self-regulation skills.

Keywords: student-athlete, athlete psychology, sports coping, failure attribution

Evaluating the Impact of a 4-Month SPARISK Aquatic Therapy Intervention on Postural Alignment and Autism-Related Developmental Challenges in Severe Kyphosis

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Abstract

This study evaluates the impact of a 4-month ATAS intervention using the SPARISK Aquatic Therapy Application (Aplikasi Terapi Akuatik SPARISK - ATAS) (Jazredal, 2024) on postural alignment and autism-related developmental challenges in two participants, Hkm and Umr Kedah, diagnosed with severe kyphosis and autism spectrum disorder (ASD). Postural alignment was quantitatively measured using the Analysis of Posture Evaluation and Correction System (APECS) over four months, and repeated measures ANOVA assessed within-subjects effects across eight variables: posterior alignment, sagittal alignment, head shift, head tilt, pelvic tilt (ASIS), shoulder alignment, knees, and feet.For Hkm, a significant improvement was observed in pelvic tilt (ASIS) ($p = 0.017$, Partial Eta Squared = 0.953, Observed Power = 0.905), with moderate effect sizes noted for sagittal alignment and knees. For Umr, pelvic tilt (ASIS) also improved significantly ($p = 0.042$, Partial Eta Squared = 0.913, Observed Power = 0.676), while moderate effects were observed for head tilt and sagittal alignment. Autism-related behaviors were assessed using the Gilliam Autism Rating Scale (GARS) across domains including restricted/repetitive behaviors, social interaction, and communication, emotional, and cognitive skills. After the intervention, Hkm achieved complete elimination of restricted/repetitive behaviors, with 100% scoring "never," 90% showing no social interaction deficits, and 81.8% achieving the best score in communication, emotional, and cognitive abilities. Umr demonstrated a reduction in frequent restricted behaviors from 80% to 50%, 90% achieving moderate social interaction ability, and improvements in cognitive-emotional abilities, with severe deficits significantly reduced. Overall, the ATAS intervention demonstrated significant developmental progress for both participants, particularly in pelvic tilt alignment and reduced autism-related challenges. These findings highlight the potential of ATAS as an effective therapeutic approach for addressing kyphosis and ASD-related developmental issues. Future research should explore the long-term sustainability and broader applicability of these outcomes.

ABSTRACTS

Poster Sessions

Effect of Integrated Psychological Skills Training on the Psychological State and Athletic Performance in Adolescent Badminton Players: MBTI Personality as a Moderating Role

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Abstract

Background: Achieving optimal athletic performance is a central goal in competitive sports, with psychological skills training (PST) emerging as a highly effective approach. Recent studies emphasize the benefits of PST and mindfulness training in improving psychological states and athletic performance. However, single-method approaches often prove inadequate, leading scholars to advocate for integrated psychological training methods. In open-skill sports such as badminton, which demand continuous adaptation to opponents and environmental changes, maintaining consistent psychological regulation is crucial. Thus, the effectiveness of psychological skills in enhancing performance is often moderated by individual personality traits, highlighting the need for tailored interventions. Objective: This study is to examine the effects of an eight-week psychological skills training program on the psychological state and athletic performance in adolescent badminton players, while analyzing the relationship between personality traits and these outcomes. Methods: This study will involve the selection of 50 adolescent badminton players aged 12 to 15. Before the experiment, participants will be grouped based on their pre-test results, which will assess two personality dimensions: introversion/extroversion and sensing/thinking types. All participants will undergo the third-generation Ottawa Mental Skills Assessment Tool and athletic performance tests before and after the experiment. The experimental process will involve an eight-week integrated psychological skills training program, consisting of four weeks of "psychological skills training courses" and four weeks of "mindfulness training courses." Each session will last one hour, comprising 30 minutes of theoretical instruction and 30 minutes of practical application. Upon completion of each session, athletes will be assigned practice tasks to sustain and enhance their psychological states effectively. Expected Results: After an eight-week psychological skills training intervention, participants' psychological states and athletic performance will significantly improve compared to pre-intervention levels. Additionally, the extroverted and feeling personality trait group (EF) is expected to demonstrate the most significant experimental effects.

Keywords: Psychological Skills Training, Adolescent Badminton Players, Psychological State, Athletic Performance, MBTI Personality

Psychometric Validation of The Sports Courange Scale Among Chinese Adolescent Football Players

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Abstract:

Introduction: Sports courage is a crucial psychological attribute that significantly influences athletic performance. However, limited research has examined the validity and reliability of the Sports Courage Scale (SCS) among Chinese adolescent football players. Objectives: This study aimed to validate the psychometric properties of the Sports Courage Scale among Chinese adolescent football players, providing a reliable measurement tool for future research and practical applications in youth football development. Methods: A purposive multi-stage sampling method was employed to recruit 450 adolescent football players aged 12-15 years from 24 schools across 12 cities in Shandong Province, China. The study utilized Confirmatory Factor Analysis (CFA) to assess structural validity, Cronbach's Alpha coefficients for internal consistency reliability, Composite Reliability (CR) and Average Variance Extracted (AVE) for convergent validity, and the Fornell-Larcker criterion for discriminant validity. Test-retest reliability was evaluated with a subset of 50 participants. Results: The findings demonstrated strong psychometric properties of the SCS in this population. The CFA revealed excellent model fit indices (RMSEA=0.021, CFI=0.976, TLI=0.975, SRMR=0.039). Internal consistency was robust across all five dimensions, with Cronbach's Alpha coefficients exceeding 0.89. Composite Reliability values ranged from 0.891 to 0.923, and AVE values approached or exceeded 0.50, indicating good convergent validity. Discriminant validity was confirmed through the Fornell-Larcker criterion, showing clear distinction between dimensions. Test-retest reliability analysis yielded Intraclass Correlation Coefficients ranging from 0.813 to 0.900, demonstrating strong temporal stability. Conclusion: This study confirms the robust psychometric properties of the Sports Courage Scale among Chinese adolescent football players, establishing it as a valid and reliable instrument for assessing sports courage in this population. These findings provide a solid foundation for future research examining the relationships between sports courage and various aspects of athletic performance and psychological well-being in youth football.

Keywords: Sports Courage Scale, adolescent football players, confirmatory factor analysis, psychometric validation.

P1-3

Research on the Theory and Practice of "Physical, Travel, and Cultural" Integration in the New Development Stage of Hainan Free Trade Port

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Abstract
Introduction: Hainan Island serves as a crucial trade hub for China, holding immense strategic significance. The island's sports, culture, and tourism sectors are intrinsically linked to the development of free trade ports.
Objective: This study aimed to explore the theoretical framework, technical logic, and demand dynamics regarding the integration of "Sports Tourism Culture" within the context of Hainan's free trade port initiative. The secondary aim is to assess the integration of sports, tourism, and cultural activities, highlighting the benefits and challenges associated with this confluence in Hainan's evolving economic landscape.
Methodology: Employing the qualitative assessment method, the researchers were investigating the "Sports Tourism Culture", and its integration logic characterised by enhanced asset versatility, industrial innovation, technological advancement, and standardisation, alongside compounded market demand reflecting a sophisticated consumer demand structure.
Results: Through practical analyses of "Sports Tourism Culture," "Tourism Sport Culture," and "Culture Sport Tourism," several conclusions emerge. Firstly, the integration is fundamentally based on industrial correlation, focusing on innovation at its core. Secondly, guided by resource universality theory, the internal mechanisms of integration arise from the commonality of industrial resources, while external driving forces comprise market dynamics, corporate roles, and policy frameworks.
Conclusion: A comprehensive integration of both internal and external factors is vital for fostering the holistic development of Hainan's economic model, informed by resources, policies, and corporate restructuring strategies.
Keywords: Hainan; Free Trade Port; Sports; Tourism; Culture; Integration.

P1-4

The Benefits of Martial Arts-Based Multi-Modal Training on Cognitive Function: A Literature Review

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Abstract
Multi-modal exercise training (MET) is an integrated exercise program that combines various movement elements while promoting health behaviors. The combined intervention of physical activity and cognitive health promotion represents a promising approach to enhancing cognitive function. However, the diversity of MET intervention types and variations in intensity may dilute the specific benefits of such programs. This raises the need to explore focused interventions. Martial arts, as a single activity intervention, when integrated with MET, could offer a targeted approach to maximizing cognitive improvements. Objective: This review aims to evaluate the existing literature on martial arts interventions combined with MET, synthesizing their effects on cognitive function, and providing recommendations for future research directions. Methods: This literature review retrieved relevant literature from databases including PubMed, Web of Science, and Scopus. Eligible studies were identified, organized, and analyzed. Results: A total of 19 articles were included in this literature review. the review revealed that martial arts-based MET interventions generally enhance cognitive functions such as inhibitory control, working memory, and attention in healthy participants. Additionally, emerging research has started to explore these interventions from cognitive neuroscience and biomarker perspectives. However, some evidence suggests that martial arts MET interventions may not effectively improve cognitive function, potentially due to inadequacies in training prescription design. Conclusion: Overall, martial arts-based MET demonstrates positive effects on the cognitive functions of healthy participants, providing evidence to support its effectiveness in enhancing cognition. However, the lack of systematic monitoring in training prescriptions for martial arts MET interventions highlights a critical gap in the current literature. Future research should focus on exploring optimal training prescriptions tailored to different populations, evaluating the benefits of various martial arts forms, and examining the integration of martial arts with other health-promoting behaviors.
Keywords: Combat Sports, Multi-Modal Exercise Training, Executive Function, Brain Function

P1-5

The Association Between Physical Activity and Planning-Related Executive Functions in Adolescents with Hearing Impairment

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Abstract

Introduction: Adolescence represents a crucial period for the rapid development of executive functions. However, hearing impairment can negatively impact these functions, particularly planning-related executive dysfunction, which can severely affect academic performance and interpersonal relationships. Previous studies have shown that adolescents with higher physical activity tend to demonstrate enhanced executive function performance. Nevertheless, no research has yet investigated the relationship between physical activity and planning-related executive functions specifically in adolescents with hearing impairments, leaving this association unclear. Objectives: This study aims to investigate the association between physical activity levels and planning-related executive functions in adolescents with hearing impairment. Methods: This study employed a cross-sectional design, recruiting 16 adolescents with hearing impairments. Participants' physical activity was assessed using the International Physical Activity Questionnaire Long Form, while planning-related executive functions were evaluated using the Tower of London task (TOL). Results: The results indicated a significant positive correlation between physical activity and the total correct scores in the TOL task ($r = 0.520$, $p = 0.020$). However, no significant correlations were observed between physical activity and total move scores, total initial time, total execution time, or total problem-solving time in the TOL task. Conclusion: Physical activity is positively associated with planning-related executive functions in adolescents with hearing impairments. Nonetheless, this study is preliminary, and the small sample size may have led to an overestimation of the true effect size. Future research with larger sample sizes is necessary to further elucidate this relationship.

Keywords: hearing loss, special populations, cognitive function, Tower of London task

P1-6

Effectiveness of Physical Activity Interventions for Improving Depression and Anxiety: A Systematic Review

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Abstract

Introduction: Mental health disorders, including depression and anxiety, pose a significant global health burden. While research indicates that physical activity (PA) can be as effective as traditional treatments (psychotherapy and pharmacotherapy), its clinical application remains limited due to challenges related to patient adherence and practical implementation.

Objective: This review aims to assess evidence from randomised controlled trials (RCTs) examining the effectiveness of PA interventions in reducing depression and anxiety symptoms across diverse adult populations.

Methods: Adhering to PRISMA guidelines, a comprehensive search of Web of Science, PubMed, ProQuest, Cochrane Library, and Scopus databases was conducted to identify relevant RCTs published until December 2024. Duplicate records were removed, and studies were selected based on pre-defined inclusion criteria.

Results: The review included 12 RCTs comparing PA interventions to usual care. Findings consistently demonstrate that PA interventions are effective in reducing mild-to-moderate symptoms of depression and anxiety across diverse populations, including the general population, individuals with diagnosed mental health conditions, and those with chronic illnesses. This highlights the considerable contribution of PA in managing symptoms of depression, anxiety, and general psychological distress.

Discussion: The consistent findings across studies emphasise the significant role of PA in managing mild-to-moderate depression and anxiety symptoms. However, future research should focus on optimizing intervention strategies to address challenges related to adherence and accessibility, facilitating wider clinical adoption.

Conclusion: This review strongly supports the integration of PA as a primary treatment modality for managing depression and anxiety in adult populations.

Keywords: Physical activity; Mental health; Depression; Anxiety; Systematic review.

P1-7

Enhancing Professional Competence Through Scoring Rubrics in Adaptive Physical Education

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Abstract

Purpose: This purpose of this study was to investigate the impact of scoring rubrics on the professional competence development of pre-service special education teachers in the adaptive physical education curriculum. With the increasing demand for special education, it is crucial to strengthen pre-service teachers' professional competence, particularly in curriculum design and implementation. Methods: The research employed a quasi-experimental design, involving 18 pre-service special education teachers from a teacher training institution over 8 weeks. Pre- and post-tests were conducted to measure changes in professional competence. Scoring rubrics, developed based on the Taiwan Ministry of Education's Teacher Professional Standards Guidelines, were used to evaluate participants' performance in areas such as educational philosophy, curriculum planning, understanding student needs, teaching strategies, and professional attitudes. Results: The findings indicated significant improvements in participants 'curriculum design, understanding student needs, and application of teaching strategies after integrating scoring rubrics. Additionally, the rubrics enhanced participants' ability to self-assess and reflect on their teaching practices, supporting the development of their professional competence. Conclusion: The results suggest that integrating scoring rubrics into teacher training programs can effectively improve the professional competence of special education pre-service teachers, supporting their future development in the field.

Keywords: adaptive physical education, scoring rubrics, professional competence, curriculum design, self-assessment

P1-8

Effects of Exercise on Upper Limb Functionality in Breast Cancer Patients: A Review

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Abstract

Introduction: The increase in breast cancer survival rates underscores advancements in treatment and heightened awareness. However, many survivors report persistent upper limb dysfunction, necessitating effective rehabilitation strategies. Objectives: To investigate the effects of varying exercise duration and the timing of the initiation of exercise interventions on upper limb mobility and strength in breast cancer patients using systematic review method. Method: A comprehensive literature search was performed from February 2014 to February 2024 across PubMed, Scopus, Google Scholar, ProQuest, and Web of Science, utilizing keywords related to breast cancer, rehabilitation, and upper limb functionality. After screening 1,760 articles by title and abstract, 20 relevant studies were included in the review.
Results: Postoperative rehabilitation exercises aimed at enhancing upper limb mobility and strength are commonly prescribed for breast cancer patients. Findings indicate that interventions initiated 1-2 days post-surgery have beneficial effects, particularly those incorporating resistance training. A notable study reported that pre-surgery stretching exercises improved shoulder range of motion and reduced postoperative pain. Generally, a frequency of 3 to 5 times per week over 6 to 8 weeks proved most effective. Discussion: The timing of exercise interventions is critical, as evidence suggests that early engagement, such as pre-surgery exercise, may enhance recovery outcomes. All included studies reported improved upper limb functionality without adverse effects. Conclusion: Continuous and supportive care incorporating exercise before and after surgery is essential for optimising breast cancer patients' physical, psychological, and social well-being. Further randomised controlled trials are recommended to investigate timing and modality effects on recovery.

Keywords: Breast cancer; Exercise; Upper limb functionality; Rehabilitation; Post-surgery care.

P1-9

Investigating the Attention Types and Quality Characteristics of Volleyball Referees in China

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Abstract

Introduction: The rapid development of modern volleyball necessitates not only that players possess strong attention skills but also that referees utilise effective attention methods and maintain high-quality focus to make quick and accurate judgments during matches. Objective: The aims of this study was to quantitatively examine the attention types and quality characteristics of volleyball referees in China, analysing how factors such as gender, referee level, age, and years of experience influence these attention attributes. Method: The study consisted of a cross-sectional survey involving 130 referees of varying levels across China. The Attention and Interpersonal Behaviour Type Test Scale (AIBTTS) and an Attention Test were used as measurement tools to evaluate attention types and qualities among the referees. Results: The findings revealed that the predominant attention types among volleyball referees include generalised external attention, generalised internal attention, and concentrated attention. Six categories of attention were identified: Broad External Attention (BET), Overworked External Stimulation (OET), Broad Internal Attention (BIT), Overworked Internal Stimulation (OIT), Overstressed Attention (NAR), and Redundant Overstressed Attention (RED). Significant differences were observed in BET, OET, and NAR across different referee levels, while gender differences in attention types were minimal. Additionally, attention quality varied significantly with factors such as gender, referee level, and age. Conclusion: This research showed the relationships between attention types and quality among volleyball referees in China. The findings provided insights for the psychological selection and training of referees, contributing to the advancement of officiating standards in the sport.

Keywords: volleyball referee, attention type, attention quality.

P1-10

Transforming Attitude and Behaviour in Physical Activity among Primary School Students in Sarawak

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Abstract

Introduction: This study examined the Transtheoretical Model (TTM) and attitudes toward physical activity (APAS) among Bau, Sarawak primary school students to transform attitudes and behaviours in physical activity through engaging interventions. Methods: The study comprised 86 participants which include 54 males (46.44%) and 32 females (27.52%) aged between 11 and 12 years old from various primary schools in Bau, Sarawak. Participants completed the TTM and APAS questionnaires. Data analysis included descriptive analysis and paired-sample t-test. Results: The paired sample t-test indicated significant differences for the control group between pre to post test on stages of change, internal feelings, competing demands, consciousness raising, dramatic relief, fun and fitness with $p < .05$. In addition, significant difference were also found for Stages of change, internal feelings, competing demands, consciousness raising, and dramatic relief with $p = < .001$*, fun, $p = .035$* and fitness, $p = .032$*. Conversely, the intervention group results revealed that there was a statistically significant increase from the pre-to-post test on pros with $p = .005$*, cons with $p = .030$*, internal feelings, competing demands, situational, consciousness raising, dramatic relief, environmental reevaluation, social liberation, counter conditioning, helping relationships, reinforcement management, self-liberation, stimulus control, importance, self-efficacy, fitness and personal best with $p < .001$*. Conclusion: The study concluded that a positive mindset is essential for young school students to adopt an active lifestyle. This positive outlook significantly impacts their perceived competence, decision-making, emotional support, and long-term commitment to physical activity.

Keywords: Transtheoretical Model, Attitudes toward Physical Activity Scale, physical education, physical activity, adolescents, Sarawak.

P1-11

The Benefits of Martial Arts-Based Multi-Modal Training on Cognitive Function: A Literature Review

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Abstract
Multi-modal exercise training (MET) is an integrated exercise program that combines various movement elements while promoting health behaviors. The combined intervention of physical activity and cognitive health promotion represents a promising approach to enhancing cognitive function. However, the diversity of MET intervention types and variations in intensity may dilute the specific benefits of such programs. This raises the need to explore focused interventions. Martial arts, as a single activity intervention, when integrated with MET, could offer a targeted approach to maximizing cognitive improvements. Objective: This review aims to evaluate the existing literature on martial arts interventions combined with MET, synthesizing their effects on cognitive function, and providing recommendations for future research directions. Methods: This literature review retrieved relevant literature from databases including PubMed, Web of Science, and Scopus. Eligible studies were identified, organized, and analyzed. Results: A total of 19 articles were included in this literature review. the review revealed that martial arts-based MET interventions generally enhance cognitive functions such as inhibitory control, working memory, and attention in healthy participants. Additionally, emerging research has started to explore these interventions from cognitive neuroscience and biomarker perspectives. However, some evidence suggests that martial arts MET interventions may not effectively improve cognitive function, potentially due to inadequacies in training prescription design. Conclusion: Overall, martial arts-based MET demonstrates positive effects on the cognitive functions of healthy participants, providing evidence to support its effectiveness in enhancing cognition. However, the lack of systematic monitoring in training prescriptions for martial arts MET interventions highlights a critical gap in the current literature. Future research should focus on exploring optimal training prescriptions tailored to different populations, evaluating the benefits of various martial arts forms, and examining the integration of martial arts with other health-promoting behaviors.
Keywords: Combat Sports, Multi-Modal Exercise Training, Executive Function, Brain Function

P1-12

Effects of acute psychological stress on heart rate variability in normotensive offspring of hypertensive parents

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Abstract
Purposes: The purposes of this study were 1) to investigate the differences in heart rate variability (HRV) between normotensive offspring of hypertensive parents and non-hypertensive parents and 2) to compare the effects of acute psychological stress on HRV between normotensive offspring of hypertensive and non-hypertensive parents.Methods: This was a cross-sectional study. Seventy-eight participants who met the inclusion criteria were recruited for this study. They were divided into the group with a family history of hypertension (n= 42) or without a family history of hypertension (n= 36). All participants completed the personal information questionnaire, Physical Activity Readiness Questionnaire, Perceived Stress Scale, and Godin-Shepard Leisure-Time Exercise Questionnaire. Next, participants' electrocardiogram (ECG) was recorded continuously during the four experimental stages, that is, the resting stage, two psychological stress stages (Stroop task and mental arithmetic task), and the recovery stage. The ECG data were then analyzed for HRV. Lastly, participants' aerobic fitness was assessed via a maximal exercise test. Results: The normotensive offspring of both hypertensive and non-hypertensive parents have normal and similar resting heart rate and blood pressure. However, participants with a family history of hypertension showed significantly lower HRV at rest. No significant difference in HRV between the groups was observed during the two psychological stress stages and the recovery stage. Conclusions: Normotensive individuals with a family history of hypertension have shown early signs of cardiac autonomic dysfunction. However, the HRV responses to acute psychological stress in this population were not different from those without a family history of hypertension.

P1-13

Psychosocial and Environmental Correlates of Physical Activity Based on the Social Ecological Model in Community-Dwelling Adults

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Abstract

Objectives: We conducted this study to investigate the predictive relationship between psychological, social, and environmental variables and PA among Korean adults, and we sought to test the mediating effect of psychological variables on the relationship between social and physical environment variables and PA in this population. Methods: We used the Statistical Package for the Social Sciences (SPSS 27.0) and AMOS 27.0 for all analyses. This study used a cross-sectional descriptive and correlational design. Participants in this study were 1177 community residents aged 40 years or older (Men = 460, Women = 717; M age = 64.78, SD = 15.97 years) living in Nowon-gu and Dobong-gu in Seoul. The distribution sources for participant recruitment included: (a) press releases issued by the district office, (b) recruitment leaflets posted on the community website, and (c) notices distributed through classes at community centers. Results: Our findings in this study indicated that participants' regular PA participation rate increased significantly in all age groups compared to reports from previous Korean studies in Korea. The primary research question in this study was to identify whether and to what degree various constructs in the SEM were related to participants' PA, with specific attention to their PA stage. We found that psychological, social, and physical environment variables were significantly related to PA and that these relationships were significantly different across each stage of PA. Conclusions:: More significantly, our data contributes to strengthen the assumed internal and external validity of the SEM in explaining PA. Longitudinal and intervention studies would particularly advance the state of this research.

Keywords: social ecological model, physical activity, psychological factors, social factors, environmental factors

P1-14

The effect of the K-Gymstar gymnastics program on physical self-concept of elementary school students.

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Abstract

This study aims to verify the effect of the K-Gymstar gymnastics program on the physical strength, body composition, and physical self-concept of elementary school students. Sixty seven male and female elementary school students participating in the K-Gymstar gymnastics program were participated and measured for physical measurement, basic physical strength measurement, and physical self-concept. Three of the participants were selected and in-depth interviews were conducted to understand more in-depth content. The program was divided into mechanical artistic gymnastics and rhythmic gymnastics, and the class was operated twice a week for eight months, and a total of two level certification competitions were held during the program. Dependent sample t-tests and the contents of the in-depth interview are performed. A few results are expected from the current study. There will be significant differences body composition and among the physical strength factors, muscle strength, endurance, quickness, flexibility, as well as physical self-concept.

Keywords: Gymnastics, Elementary School Student, Physical Strength , Physical Self-Concept, K-gymstar Gymnastics Program

P1-15

Effects of Physical Activity on Cognitive Function in People with Mild Cognitive Impairment: a Meta-Analysis of Randomized Controlled trials

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Abstract

Objectives: This study aimed to conduct a meta-analysis to comprehensively analyze and identify the effects of physical activity on cognitive function in people with mild cognitive impairment.

Methods: Twenty-one articles were selected through academic databases (EBSCOhost, PubMed, ScienceDirect, Web of Science), and 20 MoCA data and 15 MMSE data were obtained. The meta-analysis was performed using the meta-analysis package of the R program (ver.4.3.3).

Results: The results showed that, first, the meta-analysis of MoCA data showed a large effect size of 0.96 (95% CI = 0.63, 1.30); second, the meta-analysis of MMSE data showed a large effect size of 0.93 (95% CI = 0.67, 1.19); and third, the meta-analysis of MoCA and MMSE data together showed a moderate effect size of 0.68 (95% CI = 0.40, 0.95).

Conclusions:: This study demonstrates the positive effects of physical activity on cognitive function in MCI, and provides a basis for developing programs to improve cognitive function in MCI.

Keywords: physical activity, MCI, MOCA, MMSE, Meta-analysis, RCT

P1-16

Effects of Environmental Differences on EEG and Mood States during Bicycle Exercise

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Abstract

The objective of this study is to compare the effects of environmental differences on brain waves and mood states during bicycle exercise. The study's participants were divided into three groups, with 20 individuals in each group. The groups were further subdivided based on their environment, with the groups designated as indoor, outdoor, and virtual. Each participant was tasked with cycling at a moderate intensity for a duration of five minutes in each environment. In the indoor environment, the participants were instructed to gaze at a single point while cycling. In the outdoor environment, the participants were instructed to cycle on a designated cycle path. In the virtual environment, the participants were instructed to cycle on a freeriding course using a computer and Oculus Quest 3, which was connected to the Zwift app. To measure brain waves, a Quick-20 Dry EEG headset was utilized, and theta, alpha, beta, and gamma waves were analyzed using power spectrum analysis to determine the relative power of each channel. Mood states were analyzed using the Profiles of Mood States (POMS). The collected data were then subjected to a two-way analysis of variance (ANOVA) followed by a Tukey honest significant difference (HSD) post-hoc test. Electroencephalogram (EEG) analysis revealed an interaction effect of environment and post-treatment in all waveforms, as well as a main effect of environment. However, no main effect of post-treatment was observed. Mood state analysis indicated an interaction effect between environment and before and after, and a main effect between environment and before and after. The findings of this study suggest a significant influence of the environment on both EEG and mood during bicycle exercise. These results contribute to a more comprehensive understanding of the effects of the bicycle exercise environment on EEG and lay the foundation for the development of guidelines that can be used to suggest exercise environments that are beneficial to brain function and mood.

Keywords: Bicycle exercise, Environment, EEG, Mood state

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P1-17

The Influence of Peer Support on College Students' Physical Activity Behaviors: A Survey Study Based on 50 Universities

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Abstract:
Introduction: Automation and convenience are replacing physical activity among university students, leading to increased sedentary behaviour and poor physical health. Objective: This study aims to explore the influence of peer support on the physical activity behaviour of university students and investigate whether exercise self-efficacy mediates this relationship. The goal is to promote physical activity and improve physical health among university students. Methods: 2,032 students from 50 universities in China participated in the study, They completed the questionnaires to examine the effects of peer support and exercise self-efficacy on physical activity behaviour. We also examined whether exercise self-efficacy mediates the relationship between peer support and physical activity. Results: 1). Peer support, including information and advice, emotional support, behavioural role models, companionship, and supervision, significantly influences physical activity behaviour; 2). Exercise self-efficacy, particularly in overcoming subjective and objective barriers and resisting temptation, positively affects physical activity behaviour; 3). Peer support, such as informational advice, emotional support, behavioural role modelling, and supervision, significantly enhances exercise self-efficacy; 4). Exercise self-efficacy partially mediates the relationship between peer support and physical activity behaviour, with a mediation effect of 67.49%. Conclusion: Peer support plays a crucial role in promoting physical activity behaviour among university students, with exercise self-efficacy acting as a key mediator. This highlights the importance of fostering supportive peer environments to enhance physical activity and improve students' physical health. Interventions focusing on increasing peer support and exercise self-efficacy are recommended to encourage regular physical activity among university students.
Keywords: Exercise Therapy; Children; Idiopathic Scoliosis; Network Meta-analysis

P1-18

Cross-cultural adaptation, reliability, and validity of the Chinese version of Athletes' Perceptions of the Coach-related Critical Attitudes Scale (APoCCAS-C)

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Abstract:
Introduction: In 2022, Oliveira et al. developed the Athletes' Perceptions of the Coach-related Critical Attitudes Scale (APoCCAS). The APoCCAS is a single factor scale and contains 10 items. The APoCCAS is a measurement tool for evaluating the relationship between coaches and athletes in critical attitudes. This tool has simple and effective features, making it easy to detect and perceive athletes' attitudes towards coaches. Due to the relationship between athletes and coaches influences athletic performance and mental health, the emergence of the APoCCAS has a significant impact on improving the relationship between athletes and coaches. Objective: The purpose of the research is to validate the Chinese version of APoCCAS (APoCCAS-C) and provide data from the Chinese region to improve the reliability and validity of the original version of APoCCAS. In addition, the validation of APoCCAS-C also provides an effective psychological measurement tool for the Chinese region, which can better understand the relationship between athletes and coaches in China and promote the physical and mental health of athletes. Method: The study used the standard forward and backward translation method to translate APoCCAS-C. In order to ensure that APoCCAS-C conforms to the cultural and linguistic background of China, this study invited five experts to translate APoCCAS-C, including two professional translators and three sports science experts (proficient in both Chinese and English). Finally, this study collected and analyzed data from 172 Chinese athletes, and used confirmatory factor analysis (CFA) to validate the scale in Mplus 8 software. Results: The research validated APoCCAS-C and retained its 10 items. APoCCAS-C has been validated by the research to have high reliability and validation [RMSEA (90% CI)=0.071 (0.064-0.078); SRMR=0.033; CFI=0.965; TLI=0.954; Cronbach alpha=0.948], and the items of APoCCAS-C have high internal consistency (0.901 to 0.938). Discussion: The research confirmed the validation and reliability of APoCCAS-C, and determined that APoCCAS-C can be used as an effective psychological measurement tool in China. APoCCAS-C can accurately measure and evaluate the critical attitudes of athletes in China towards coaches.
Keywords: Confirmatory factor analysis, Chinese athletes and Coaches,critical attitudes

P1-19

Validation of the Badminton Mental Toughness Questionnaire for Chinese University Student-Athletes

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Abstract:
Background: Mental toughness is a vital attribute that affects training and competition performance in athletes. The Sports Mental Toughness Questionnaire (SMTQ) is widely used to assess this psychological construct; however, there is currently no validated instrument for evaluating badminton-specific mental toughness among Chinese university athletes. Objective: This study aims to validate the Chinese version of the Sports Mental Toughness Questionnaire-Badminton (C-SMTQ-B), establishing it as an effective tool for assessing mental toughness in Chinese university badminton athletes. Methods: A team of bilingual researchers conducted a thorough forward-backward translation of the original SMTQ into Chinese, ensuring accuracy to the original instrument. The translated questionnaire and a sociodemographic survey were administered. Then, a multi-stage random sampling technique was employed to select 640 university badminton athletes aged 18 to 22 from five universities in Kunming, Yunnan Province. Participants volunteered and completed the revised C-SMTQ-B. Data were analysed using SPSS 27.0 and MPlus 8.0 software, focusing on confirming the factor structure through Confirmatory Factor Analysis (CFA). Results: The fit indices for the three-factor model of the C-SMTQ-B (RMSEA = 0.051, CFI = 0.978, TLI = 0.974) were satisfactory, indicating good structural validity. The final model comprised 14 items with robust psychometric properties for measuring mental toughness. Conclusion: The findings enhance the understanding of mental toughness among Chinese university badminton athletes and provide a reliable instrument for future research and intervention initiatives. Further studies should leverage the C-SMTQ-B to explore the links between mental toughness and performance outcomes in this group.
Keywords: Validation; Mental Toughness; Sport Psychology; Badminton; Student-Athletes.

P1-20

A Systematic Review on the Effects of High-Intensity Interval Training as an Intervention for Obesity in Children and Adolescents: Efficacy and Implimentation Strategies

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Abstract:
Introduction: In recent years, high-intensity interval training (HIIT) has gained prominence as an effective and time-efficient exercise modality. As childhood obesity continues to rise globally, identifying effective intervention methods is crucial for promoting physical health among affected youth. Objective: This systematic review aims to evaluate the effectiveness of HIIT on the physical health of obese children and adolescents, focusing on optimal implementation protocols and health-related outcomes. Method: A comprehensive literature search was performed across multiple databases, including PubMed, ScienceDirect, and Scopus. Inclusion criteria required studies to be in English, involve healthy children and/or adolescents aged 6-18 years, incorporate HIIT interventions, and report health-related outcomes. From an initial pool of 2,322 studies, 13 met the inclusion criteria for this review. Discussion: The findings indicate that HIIT significantly improves cardiopulmonary function and positively affects body composition in obese children and adolescents. However, evidence related to other health outcomes, such as metabolic health and psychological well-being, remains limited. Additionally, methodological constraints in existing studies highlight the need for further exploration of optimal exercise durations and rest intervals. Conclusion: HIIT is a promising intervention for addressing obesity and enhancing physical health in children and adolescents. Despite its efficacy, ongoing research is essential to clarify specific protocols and maximise its health benefits as a strategy against childhood obesity.
Keywords: Obesity, HIIT, Children, Adolescents, Physical health

P1-21

Does Attentional Focus Affect Athletes' Agility Performance? A Proposal

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Abstract:
Attentional focus plays a critical role in athletic performance, influencing how athletes allocate their attention during action execution. Existing research indicates that external attentional focus enhances performance more effectively than internal attentional focus. However, studies focusing athletes have yielded inconsistent findings. Therefore, the purpose of this study will explore the effects of different attentional focus on athletes' agility performance. Thirty athletes aged 20 or older will be recruited as participants. Agility performance will be assessed using the 505 agility test. Participants will perform the test under three attentional focus conditions: 1) natural condition, 2) internal focus condition, and 3) external focus condition. Each participant will complete three trials under each condition. All data will be analyzed by one-way repeated measures ANOVA to compare agility performance across three conditions. This study is expected that performance under external attentional focus will outperform internal attentional focus. Through the study, we try to understand the effects of attentional focus on athletes' agility and provide recommendations for improving athlete performance in both competitive and training environments.
Keywords: Attentional focus, Athlete, Agility, 505 agility test.

P1-22

A Study on the Impact of Sports Participation Degree on Academic Performance among Junior High School Students

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Abstract:
Introduction: In 2013, Taiwan's Ministry of Education's Sports Administration initiated the Sports & Health 150 (SH150) program to encourage students to participate in sports for 150 minutes weekly outside of physical education classes. However, some concerns that increased sports participation might negatively impact students' academic learning and performance, even though research suggests that regular exercise can release academic stress and potentially maximize individual academic achievement. Objectives: whether students engage in additional extracurricular sports and their impact on academic achievement remains worth investigating. Methodology: This research surveyed 1,189 junior high school students in New Taipei City with a questionnaire of sports participation and academic achievement. Major Findings: 80% of participants were involved in sports, with 20% having no sports participation. Among those participating in sports, 59.9% were considered high-level participants (above average). The study found a significant but low negative correlation between sports participation degree and academic achievement, with students of lower sports participation showing better academic performance. However, there was no significant difference in academic achievement between students who participated in sports and those who did not. Conclusion: While a negative correlation exists between sports participation degree and academic achievement, it is only a low-level correlation, and sports participation does not significantly impact academic achievement. To ensure holistic student development, appropriate sports participation is needed. Future research could explore different regions and school levels and analyze potential moderating variables.
Keywords: Sports Participation, Academic Performance, Secondary School Students

P1-23

Psychological Characteristics of Tennis Players: A Systematic Review and Meta-Analysis of Chinese Youth Development

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Abstract:
Introduction: Tennis, as a highly competitive sport, places considerable emphasis on the psychological characteristics of athletes, which play a vital role in competitive performance. Objective: This study aims to systematically review and conduct a meta-analysis of the psychological traits exhibited by Chinese youth tennis players and their impact on athletic performance. Besides, the secondary aim is to explore key psychological characteristics, such as self-confidence, motivation, emotional regulation, and attention control, and to provide a scientific basis for future training and optimisation strategies. Methods: A comprehensive literature search was conducted, encompassing published research on the psychological characteristics of tennis players, both domestically and internationally. Screening criteria were established to include studies based on design, subject matter, intervention type, duration, and outcome indicators, ensuring the quality and consistency of selected studies.Results: Meta-analysis findings indicated that psychological characteristics significantly impact competitive performance in tennis. Enhancements in self-confidence, motivation, emotional regulation, and attention control correlate with improved athletic performance. Furthermore, the analysis revealed that variations in psychological characteristics influence performance differently, moderated by individual differences, sports level, and competitive environments. Gender differences were also noted, with traits like self-confidence and emotional regulation exerting a more pronounced effect on male athletes. Conclusion: Based on these insights, targeted training and optimisation strategies are proposed, including the enhancement of psychological skills training, boosting athletes' self-confidence and motivation, and refining emotional regulation abilities to improve performance in tennis.
Keywords: Psychological Characteristics,Tennis, Youth Development, Meta-Analysis, Performance.

P1-24

Cross-cultural adaptation and validation of the Chinese version of the Injury-Psychological Readiness to Return to Sport (I-PRRS) Scales

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Abstract:
Introduction: The Injury-Psychological Readiness to Return to Sport (I-PRRS) scale is a tool employed for evaluating athletes' psychological preparedness to return to sports participation following injuries. Developed and validated by Glazer et al. in 2009, the I-PRRS comprises six items, each scored from 0 to 100. The cumulative score of all six items, divided by 10, provides the final score, with a maximum possible score of 600. Categorised into three levels, scores of 20 or below indicates low confidence in return to sports, 21-40 signify moderate confidence, and scores of 60 denote the highest confidence levels. Widely acknowledged for its reliability and validity, the I-PRRS has been successfully adapted into various versions, such as Persian and Dutch. Thus, this study focuses on translating and validating the I-PRRS into the Chinese version. Objective: The primary objective of this research is to translate and validate the Chinese version of the I-PRRS scale. The study also aimed to ensure a strong adaptation by maintaining fidelity to the original version. Through rigorous validation processes, the study intends to affirm the psychometric properties of the newly translated Chinese I-PRRS, establishing its validity and reliability within the Chinese context. Method: A team comprising two proficient translation experts and three sports psychology and sports science specialists, fluent in both English and Chinese, oversaw the translation process using standard forward and backward translation procedures to ensure consistency of both versions. Then, the Chinese version underwent confirmatory factor analysis (CFA) using Mplus 8 software to validate the scale. Results: The validation process confirmed the retention of all six items of the I-PRRS in the Chinese version. Analysis revealed satisfactory results for RMSEA and SRMR, falling within acceptable ranges. High levels of internal consistency were indicated by composite reliability scores ranging from 0.908 to 0.948. The Chinese adaptation demonstrated strong alignment with the original scale, affirming its validity and reliability through empirical testing. Conclusion: The validated Chinese version of the I-PRRS exhibits reliability and validity within acceptable ranges, endorsing its use for evaluating the psychological readiness of injured athletes to return to sports activities in China. Retention of all six items through CFA further cements the scale's applicability and effectiveness in the Chinese sports domain.
Keywords: Confirmatory factor analysis, Injury-psychological readiness, return to sport, Chinese athletes.

P1-25

Construction of competency evaluation index system for CUBA Basketball Coaches

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Abstract:
Introduction: The China University Basketball Association (CUBA) has evolved into a leading college basketball league, necessitating highly skilled coaches to meet the demands of its growth. Objectives: This study aims to establish a competency evaluation index system for CUBA basketball coaches and to conduct an empirical evaluation of their competencies. Methods: An initial questionnaire was formulated through two rounds of expert opinions. The Analytic Hierarchy Process (AHP) was employed in the third round to determine indicator weights. Data were collected from 10 industry experts to assess each indicator's importance. A pairwise judgment matrix was constructed using Yaahp hierarchical analysis software. Results: The evaluation index system comprises four first-level indicators and 26 second-level indicators. Notably, personal characteristics and professional basic abilities ranked highest in importance. An empirical evaluation using Fuzzy Sets showed that a specific coach scored an average of 80 points, indicating good competency. Discussion and Conclusion: This study successfully established a competency evaluation index system for CUBA basketball coaches but acknowledges limitations such as a small sample size and the need for more comprehensive generalization. Further research is recommended to enhance the validity of the evaluation system.
Keywords: CUBA, Basketball Coaches, Competency Evaluation, AHP, Physical Education
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P1-26

The Impact of Rhythm Training on Training Outcomes and Performance in Table Tennis Athletes: A Systematic Review

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Abstract:
Introduction: This systematic review investigates the influence of rhythm training on the training outcomes and performance of table tennis athletes, highlighting its potential benefits in enhancing athletic capabilities. Methods: Following the PRISMA guidelines, data for this review were collected from reputable scientific databases, including PubMed, EBSCO, Web of Science, and Scopus. From an initial pool of 1,256 records, 27 relevant studies met the inclusion criteria. These studies encompassed both physical and technical rhythm training methodologies. Various instruments and approaches were used, including interactive music tempo control with closed-loop heart rate feedback, force plates, metronomes, music stimuli, the Bassin anticipation timer device, conventional reaction time devices, rhythm training, physical training, rhythmic competence analysis tests, the Rating of Perceived Exertion scale, and coincidence-anticipation timing accuracy assessments. Participants included athletes from open skill sports such as table tennis, tennis, badminton, soccer, basketball, and handball. Results: The findings indicated that rhythm training significantly improved various athletic metrics. Specifically, for table tennis athletes, rhythm training was associated with reduced reaction times, enhanced reaction speed, improved technical accuracy during competitions, and favorable psychological indicators. Moreover, significant benefits were observed in other sports, particularly improvements in technical consistency and short-term performance. Conclusion: Rhythm training emerges as an effective intervention to enhance performance among table tennis athletes. Future research should explore rhythm training applications across different levels of athletes and integrate psychological and physiological assessments for a comprehensive evaluation. This approach will facilitate the development of more personalised training programs, offering practical guidance for coaches and athletes aimed at boosting competitive performance in table tennis.
Keywords: rhythm training, table tennis, athletic performance, open skill sports.

P1-27

Empirical Analysis of the Relationship Between Adolescent Physical Education and Academic Performance

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Abstract:
Introduction: In contemporary society, students' academic performance is a key indicator of educational outcomes. With an increasing focus on the holistic development of students, the role of physical education is receiving greater attention in educational research. Objective: This study aimed to investigate the correlation between adolescent physical education and academic performance through empirical analysis, highlighting the beneficial effects of regular physical activity on academic outcomes. The secondary aim was to explore how participation in physical education influences academic performance in adolescents. Methods: A cross-sectional research design was employed, involving 600 students randomly selected and volunteered from three middle schools across different regions. Stratified random sampling ensured representation across varied economic backgrounds, genders, and ages (12-16 years). Data collection involved questionnaire surveys assessing participation in sports activities and academic performance records, including final exam scores in core subjects alongside qualitative measures such as classroom engagement and homework completion. Results: Findings indicated that regular participation in physical activities notably boosts students' physical health and academic performance. Students actively engaged in sports exhibited improved learning motivation, time management skills, and stress management, all contributing to enhanced academic results. Moreover, appropriate physical activity positively impacted concentration and self-efficacy, further benefitting academic achievement. Conclusion: This study emphasises the integral role of physical education in the school curriculum, advocating for its importance in promoting both academic success and overall well-being among students.
Keywords: Adolescents; Physical Education; Academic

P1-28

Research of Health-Related Physical Fitness and Cognition in Older and Middle-Aged Adults: Development Over the Past Decade

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Abstract:
Introduction: Cognitive function plays an important role in middle-aged and elderly people. Its good condition not only helps prevent dementia and other cognitive disorders, but also promotes mental health and improves the quality of life. Healthy physical fitness, as an objective indicator to quantify physical activity habits, has been increasingly studied in recent years to explore its relationship with cognitive function. However, in the past ten years, most studies have explored the relationship between a single healthy physical fitness and cognitive function, and less discussion has focused on the five healthy physical fitness items of the American College of Sports Medicine. Objectives: This article aims to review the research in the past ten years, include all the American College of Sports Medicine's healthy physical fitness, and explore the impact of different healthy physical fitness on the cognitive function of middle-aged and elderly people. Methods: This study used the PubMed electronic database to conduct a literature search for articles from 2014 to 2024, and used "fitness" and "cognitive function" as keywords. In addition, the research subjects must be middle-aged and elderly people over 45 years old, and only observational studies without intervention are included. Results: A total of 16 studies were finally included in this study. 12 articles discuss cardiopulmonary fitness, 8 articles on muscle strength, 2 articles on muscle endurance, 3 articles on flexibility, and 2 articles on body composition. Conclusion: Most studies have found that cardiorespiratory fitness, muscle strength and muscular endurance are positively related to cognitive function. However, the other two health fitness components (softness and body composition) were not found to be related to cognitive function. These findings suggest that in practical applications, improving these three healthy physical fitness can be the main goal, and exercise prescriptions can be formulated accordingly to improve the cognitive function of middle-aged and elderly people.
Keywords: Healthy physical fitness, cognitive function, middle-aged and elderly people

P1-29

Associations between Physical Activity, Depression, Self-esteem, and Suicide Ideation in Adolescents

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Abstract:
Objectives: This study aimed to conduct a meta-analysis to comprehensively analyze and identify the effects of physical activity on cognitive function in people with mild cognitive impairment. Methods: The study participants were 946 students (male: 527, female: 419) who attended junior high and high schools located in Seoul, Korea. The self-esteem scale, a leisure time physical activity scale, the self-rating depression scale, and the suicide ideation scale were used to identify mental health and physical activity of adolescents. Descriptive analysis, correlation analysis, and structural Equation Modeling were conducted to test the study hypothesis. Results: Results indicated that physical activity were significantly correlated with depression, self-esteem, and suicide ideation. On the basis of each variable's correlations, the finding revealed that physical activity was significantly associated with self-esteem, depression, and suicide ideation. In addition, depression and self-esteem had significant mediating effects on the relationship between physical activity and suicide ideation. Conclusions: The study suggests that the suicide prevention intervention should be incorporate physical activity involvement with self-esteem and depression to strengthen the protective combined effect of the intervention on suicide ideation and suicide attempts.
Keywords: physical activity, depression, self-esteem, suicide ideation, adolescents

P2-30

The Relationship between Mental Toughness and Endurance Capacity in High-Intensity Exercise among Futsal Student-Athlete

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Abstract:
Mental toughness is a psychological construct that enables athletes to cope with challenges and maintain motivation. This study examined the relationship between mental toughness, perceived exertion, and time to exhaustion in 29 student-athletes (mean age = 20.3 years) during high-intensity cycling. Mental toughness was assessed using a validated questionnaire, while perceived exertion was measured using the Borg scale. Participants cycled at progressively increasing workloads until reaching 75% of their maximum heart rate, then maintained that workload until exhaustion. Results showed that perceived mental toughness was associated with a faster time to reach 75% of maximum heart rate, but not with time to exhaustion after reaching this threshold. Most participants tolerated high intensity for 6-8 minutes, with perceived exertion levels ranging from 10-17. Interestingly, participants with higher resting heart rates reached 75% of maximum heart rate faster but had shorter exercise duration compared to those with lower resting heart rates. The findings suggest that mental toughness may be more influential in the initial stages of high-intensity exercise, before the onset of significant fatigue.
Keyword: Mental Strong/High-Intensity Exercise/Endurance Capacity/Perceived Exhaustion

P2-31

A Narrative Review on the Effects of Body Composition on Sleep quality: Mechanisms and Implications

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Abstract:
Introduction: Sleep is an essential physiological requirement that significantly influences physical and mental health. Sleep disorders, particularly those leading to obesity and sleep deprivation, pose substantial public health challenges. The increasing prevalence of these conditions contributes to a range of adverse health outcomes, including cardiovascular diseases that can be life-threatening. Objective: This review aimed to evaluate the impact of body composition on sleep quality, specifically investigating the relationship between the two, and identifying the underlying mechanisms involved. Method: A comprehensive literature review was conducted, focusing on studies that address the interaction between body composition and sleep quality. Relevant research was sourced from major academic databases, including PubMed, Scopus, and Web of Science. Key search terms included “body composition,” “obesity,” “sleep quality,” and “sleep disorders.” The findings were synthesised to identify common themes and mechanisms linking body composition to sleep outcomes. Discussion: Emerging evidence indicates a bidirectional relationship between body composition and sleep quality. While sleep disturbances can lead to obesity due to metabolic dysregulation, obesity itself negatively influences sleep patterns through mechanisms such as anatomical alterations, nighttime fluid shifts, and impaired thermoregulation. Additionally, dietary factors may increase these interactions, further complicating sleep disorders. Conclusion: Understanding the intricate relationship between body composition and sleep quality is crucial for developing effective interventions. Future research should focus on elucidating the mechanisms involved, exploring the role of lifestyle factors, and establishing therapeutic strategies to improve sleep quality among individuals with adverse body composition profiles.
Keywords: Obesity, Sleep quality, Body composition

P2-32

The Effects of Verbal Feedback Frequency and Timing on Learning Tennis Forehand Skills: Insights from Different Learning Stages

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Abstract:
Background: The frequency and timing of verbal feedback have been critical areas of research in motor skill learning. Excessive feedback can cause learners to become dependent on it, resulting in performance deterioration when the feedback is withdrawn. The ongoing debate regarding the efficacy of terminal versus concurrent feedback highlights the ambiguity surrounding feedback frequency and timing. Purpose: This study aims to investigate the effects of varying verbal feedback frequencies and timing on different learning stages of the tennis forehand, ultimately providing theoretical references for improving sports practice and teaching. Methods: A 2×2×2 mixed experimental design was employed, examining factors including feedback frequency (high > 80% vs. low < 40%), feedback timing (concurrent vs. terminal), and learning stage (acquisition vs. retention). Forty beginner tennis players were randomly assigned to four research conditions: high-frequency + concurrent feedback, low-frequency + concurrent feedback, high-frequency + terminal feedback, and low-frequency + terminal feedback. The experiment occurred over four weeks, with weekly 80-minute training sessions. Performance was assessed during the second week (acquisition) and the fourth week (retention) after a one-week rest. Results: High-frequency verbal feedback significantly improved movement standardisation in both acquisition and retention phases, with concurrent feedback providing the most immediate corrections. In the retention phase, the high-frequency concurrent feedback group showed noticeable memory decay, while the low-frequency terminal feedback group demonstrated minimal decay. Shot placement accuracy was significantly higher in the high-frequency concurrent group during both phases. Conclusion: High-frequency concurrent feedback is more effective for beginners learning tennis, facilitating correct motor skill acquisition and enhancing performance.
Keywords: verbal feedback, tennis forehand, feedback timing, motor skill learning.

Personality, hardiness, social support, and physical activity influences on mental stress among Chinese college students: a structural equation modeling approach

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Abstract:
Background: The issue of college students' mental health is an important topic of current social concern. The individual mental stress level is an important indicator of mental health. College students often experience significant levels of mental stress due to various academic, social, and personal factors. This study aimed to analyze the factors influencing mental stress among college students in terms of personality, hardiness, social support, and physical activity and constructs a structural equation model to provide data support and suggestions for the development of intervention strategies to alleviate psychological stress among college students. Methods: A cross-sectional investigation that involved 890 Chinese college students was conducted from January to February 2023. Personality (MINI-IPIP), hardiness (CD-RISC), social support (SSSUS), and the amount of PA (GPAQ) were investigated through an online questionnaire survey. The mental stress level was measured by a validated mental stress measuring meter (uBioMacpa). Structural equation modeling was conducted to determine associations between personality, hardiness, social support, physical activity, and mental stress among college students. Results: Of the 890 participants, 40.8% of the total number of students were grouped in primary stress, accumulated stress, and chronic stress, with a mean score of 34.61 (standard deviation = 13.25). The structural equation model fits the data well based on several fit indices (CFI=0.976; TLI=0.968; SRMR=0.038; RMSEA (CI:90%) =0.057(0.050, 0.065); RMSEA p =0.055). Conclusion: The present study indicates that personality, hardiness, social support, and physical activity have a direct effect on mental stress. Meanwhile, personality had a significant indirect relationship with mental stress via mental hardiness and amount of physical activity. Social support also demonstrated an indirect association with mental stress mediated by physical activity levels. The findings of this study imply that strategies for preventing psychological issues among college students should be considered from a holistic perspective, integrating the effects of internal and external factors.
Keywords: College students, Personality, Hardiness, Social support, Physical activity, Mental stress.

Relationship between Physical Activity and Mental Health according to the Satisfaction of Basic Psychological Needs of Adults

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Abstract:
The purpose of this study is to verify the relationship between basic psychological needs satisfaction and mental health in adults. A total of 312 adults was recruited aged 20~49. Basic psychological needs satisfaction, physical activity, social isolation, loneliness, quality of life, sleep, and physical activity were measured using questionnaires. Multiple regression analyses were performed. Basic psychological needs satisfaction(autonomy, competence, relationship) was a positive predictor on social isolation. Competence and relatedness were positive predictors on loneliness. Aautonomy was a positive predictor on quality of life. Basic psychological needs satisfaction were not associated with physical activity and sleep.
Keywords: Basic psychological needs satisfaction, physical activity, social isolation, loneliness, quality of life, sleep

P2-35

Effectiveness of Sports Intervention on Internet addiction: A Systematic Review

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Abstract:
Introduction: The rapid development of technology and the increasing range of entertainment options have contributed to the growing prevalence of internet addiction, a complex public health issue. This problem is particularly pronounced among Malaysian adolescents, adversely affecting their psychological and social functioning and hindering their overall development. Addressing internet addiction through effective interventions is crucial for promoting the well-being of this demographic. Objective: This systematic review aims to evaluate the effectiveness of sports interventions as a means to reduce internet addiction and enhance mental health among adolescents. Method: Following PRISMA guidelines, a comprehensive literature search was conducted across prominent academic databases, including Web of Science, PubMed, ProQuest, Cochrane Library, and Scopus, to identify studies published before August 2024. After applying specific keywords and removing duplicates, 19 randomized controlled trials were included in the analysis. Discussion: The findings revealed that sports interventions significantly reduce internet addiction severity and improve mental health outcomes, including anxiety, depression, and interpersonal sensitivity. Moderate-intensity group sports emerged as the most effective exercise modality for adolescents struggling with internet addiction. Conclusion: Sports interventions represent a promising alternative treatment strategy for addressing internet addiction among students. Despite the positive findings, further research is necessary to deepen the understanding of exercise's benefits and optimise intervention strategies for this population.
Keywords: Internet addiction, Sports interventions, Mental health

P2-36

Rhythm and Golf Putting: Innovative Applications of Electronic Drum Training

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Abstract:
Introduction: Golf putting requires fine motor control and high concentration, where rhythm and movement fluidity are essential for success. Current training methods focus mainly on technical skills, neglecting the role of rhythm in psychological and physiological aspects. Research has shown that music and rhythm training enhance brain motor control, particularly in rehabilitation and rhythmic movement studies. Combining electronic drums and rhythm training may offer a breakthrough in golf putting training. Objective:This study explores an innovative cross-disciplinary approach that combines electronic drums and rhythm training to improve rhythmicity and precision in golf putting. It examines whether electronic drum training can enhance stability, rhythm consistency, and psychological focus in putting. Method: A randomized controlled trial (RCT) was conducted with 40 participants of similar golf experience, split into experimental and control groups. The experimental group underwent 6 weeks of electronic drum rhythm training, including fixed-beat tapping, complex rhythm pattern learning, and rhythm-action synchronization. The control group received traditional putting technique training. Performance, rhythm sense (Beat Alignment Test, BAT), and psychological focus (Focused Attention Scale, FAS) were measured. Results:The experimental group showed significantly higher putting success rates at 1m, 2m, and 3m ($p < 0.01$) and reduced deviation. Rhythm sense scores increased significantly ($p < 0.01$), and psychological focus improved ($p < 0.05$). A positive correlation was found between rhythm sense and putting success ($r = 0.78$, $p < 0.01$). Discussion: Electronic drum training improved rhythmicity in golf putting, likely enhancing motor control and time perception. Cross-disciplinary training strengthens rhythm and neural-muscular coordination. The impact on psychological focus suggests that rhythm training improves performance beyond motor control. Conclusion:This study demonstrates the potential of combining electronic drum and rhythm training to enhance golf putting performance. It improves motor control, rhythm sense, and psychological focus. Future research should explore long-term effects and the impact on other golf techniques.
Keywords: Electronic Drum Training, Golf Putting, Rhythm Sense, Psychological Focus

A Systematic Review of Traditional Chinese Mind-Body Exercises for Adolescents with Subthreshold Depression

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Abstract:
Introduction: The prevalence of subthreshold depression (StD) among adolescents is increasing, which negatively impacts their daily functioning and increases the risk of developing major depressive disorders. Traditional Chinese mind-body exercises, including Taijiquan, Qigong, and Baduanjin, have been proposed as promising interventions for enhancing mental health among adolescents. Objective: This systematic review aimed to evaluate the effects of Traditional Chinese mind-body exercises on adolescents with subthreshold depression, specifically examining outcomes related to sleep quality, anxiety, depression, and overall mental health. Method: A systematic literature search was conducted from January 2018 to November 2024 across multiple databases, including PubMed, Web of Science, and CNKI. Seventeen randomized controlled trials were identified and included, with a focus on their intervention methodologies, durations, and outcomes. Results: The findings indicated that Traditional Chinese mind-body exercises, typically delivered over a duration of 10 to 12 weeks, with each session lasting approximately 60 minutes and occurring 2 to 3 times per week, significantly enhance sleep quality and reduce symptoms of anxiety and depression among adolescents. Discussion: The evidence suggested that Traditional Chinese mind-body exercises may positively influence mental health by modulating the autonomic nervous system, though the specific neuromodulatory mechanisms remain to be fully elucidated. There is a need for standardised intervention protocols to ensure consistency in application across different studies. Conclusion: Traditional Chinese mind-body exercises demonstrate efficacy in improving sleep, alleviating anxiety and depressive symptoms, and promoting mental health among adolescents with subthreshold depression. Future research should focus on investigating the underlying mechanisms and optimising treatment protocols for greater effectiveness.
Keywords: Traditional Chinese Mind-Body Exercises; Adolescents; Subthreshold Depression

Psychometric Properties of the Sport Mental Health Continuum – Short Form Scale: Cross-Cultural Validation of the Chinese Adaptation

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Abstract:
Background: The Sport Mental Health Continuum – Short Form (Sport MHC-SF) is designed to assess the mental health of athletes but has primarily been validated in Western contexts. Its applicability to the Chinese population remains unexamined, necessitating reliable measurement tools for researching athlete mental health and well-being. Objective: This study aimed to validate the Chinese adaptation of the Sport MHC-SF for university athletes, assessing its reliability, validity, and factorial structure. Methods: A total of 1,025 Chinese university athletes volunteered and participated in the study. The 14-item Sport MHC-SF, measuring emotional, social, and psychological well-being, was translated into Chinese using standard forward-backward methods by five experts. Participants completed the translated questionnaire. Confirmatory factor analysis (CFA) and multi-group confirmatory factor analysis (MGCFA) were performed using Mplus 8.0 to evaluate the scale's factor structure and measurement invariance. Results: Both the three-factor and second-order models showed good fit for the Sport MHC-SF (Chi-square = 262.704; CFI = 0.968; TLI = 0.961; SRMR = 0.027; RMSEA = 0.050). Measurement invariance was confirmed across ranked and non-ranked athletes, with minimal changes in fit indices. Ranked university athletes reported significantly higher overall well-being (mean ± SD: 47.33±10.55) than non-ranked counterparts (mean ± SD: 44.82 ± 11.40; $p < 0.01$). Conclusion: The Chinese adaptation of the Sport MHC-SF demonstrates strong construct validity, reliability, and measurement invariance, providing a reliable tool for investigating the well-being of Chinese athletes. This research addresses a significant gap in cross-cultural validation and lays the groundwork for future applications in sports psychology.
Keywords: Confirmatory Factor Analysis; Mental health; Well-being; University athletes.

P2-39

Exploring the influence of resilience on the work passion and work motivation of secondary physical education teachers

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Abstract:
Introduction: The role of PE teachers is becoming increasingly complex, and it is more important than ever to cultivate resilience to increase work passion and motivation. Objectives: This study examines the secondary physical education teachers' overall situation of resilience, work passion and work motivation, and the impact of secondary physical education teachers' resilience on their work passion and work motivation. Methods: The questionnaire survey method was used for data collection, survey instruments included: The Connor-Davidson Resilience Scale (25 items), The Work Passion Scale (10 items) and The Work Motivation Scale (25 items). Participants included 706 teachers who taught in five provinces in central and western China. A cross-sectional survey was conducted to collect data on resilience, work passion and work motivation. Results: The results showed a significant positive correlation between resilience and work passion ($r = 0.574$, $p < 0.01$), between resilience and work motivation ($r = 0.521$, $p < 0.01$), and between work passion and work motivation ($r = 0.506$, $p < 0.01$). Besides, it was observed that resilience positively influenced both work passion (path coefficient = 0.563, $p < 0.001$) and work motivation (path coefficient = 0.593, $p < 0.001$). Discussion: This study evaluates a conceptual model for understanding the relationships between resilience, passion, and work motivation among secondary physical education teachers. The results provided overall support for the study hypotheses. The results affirm the constructive impact of resilience on enhancing work passion and work motivation levels among secondary school physical education teachers. Conclusion: In conclusion, the study demonstrates that increasing resilience among physical education teachers can lead to enhancements in work passion and work motivation. Therefore, investing in strategies to cultivate resilience is essential for refining the professional engagement and motivation levels of secondary school physical education teachers.
Keywords: PE. teachers; resilience; work passion; work motivation; relationship.

P2-40

The Effect of Self-Talk on Basketball Shooting Performance: A Literature Review

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Abstract:
Introduction: Basketball is a sport that combines high-intensity physical demands with precise motor coordination. Among its critical technical skills, shooting requires not only coordination and strength control but is also highly susceptible to psychological factors such as pressure, external environment, and audience interference. Athletes need to maintain concentration and psychological stability. Self-talk is a psychological skill frequently employed to enhance sport performance. Self-talk has been demonstrated that can improve concentrate, boost motivation, and redirect attention to performance-relevant cues in athletes. Additionally, self-talk can be categorized into motivational and instructional types, both of which are designed to enhance athletic performance. Objectives: This study aims to review existing research on the effects of self-talk on basketball shooting performance, to better understand its mechanisms and benefits, and to identify the most effective self-talk strategies for basketball players. Methods: This study conducted a literature search using the Scopus database with the keywords “self-talk,” “basketball,” and “performance.” A total of 20 articles were initially identified, of which eight published articles met the inclusion criteria. Results: Self-talk was found to effectively enhance basketball shooting performance, even under external environmental disturbances. Instructional self-talk optimized motor execution, reduced movement variability, and improved static shooting performance. Motivational self-talk mitigated the negative effects of mental fatigue, helping athletes maintain stability and focus during free throws. Notably, most previous studies adopted single-session interventions and used pre-determined self-talk content. Conclusion: Self-talk is an effective strategy for enhancing basketball performance, though its effects vary depending on task complexity, athlete age, and skill level. Future research should focus on developing self-talk content tailored to task contexts and individual differences, such as skill proficiency, and investigate the long-term effects of self-talk interventions.
Keywords: self-talk, basketball, shooting, performance

The Relationship Between Obesity Stigma and Physical Activity: A Systematic Review

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Abstract:
Introduction: Obesity stigma, encompassing societal prejudice, discrimination, and internalised negative self-perceptions, is a significant public health concern. Evidence suggests a strong link between obesity stigma and adverse health outcomes, including impaired mental health and reduced engagement in health-promoting behaviours. Objective: This systematic review examines the established relationship between obesity stigma and physical activity levels. It synthesises quantitative research exploring the association between obesity stigma and physical activity participation, considering the potential moderating effects of age and other factors. Methods: A systematic search of Web of Science, Medline, and PsycINFO databases was undertaken, adhering to PRISMA guidelines. Inclusion criteria required quantitative studies measuring both obesity stigma and physical activity, reporting a quantitative association between these variables. Reviews, qualitative studies, and non-peer-reviewed literature were excluded. Data extraction focused on sample characteristics, study design, and primary outcomes, with a critical appraisal of study quality and risk of bias. Results: The review revealed a generally significant negative association between obesity stigma and physical activity levels across various age groups, particularly among adolescents and adults. Internalised obesity stigma appears to be a particularly strong predictor of reduced physical activity. However, inconsistencies exist due to variations in study methodologies and sample characteristics. The reliance on self-reported measures limits the reliability of findings and the ability to definitively establish causal relationships. Discussion: The findings highlighted the critical need to address obesity stigma to promote physical activity and improve public health. Future research should utilise more robust methodologies, including objective measures of physical activity and larger, more diverse samples, to strengthen causal inferences and generalizability. Conclusion: While this review supports a negative association between obesity stigma and physical activity, further high-quality research is necessary to enhance our understanding of this complex relationship and to inform effective interventions.
Keywords: Obesity stigma; Physical activity; Systematic review.

The Innovative Multi-Learning: A Study on the Positive Attitude Transformation Process of University Students' Toward ' Senior Sports Services

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Abstract:
Introduction: Through integrated and contextual learning, cultivate college students' ability to adapt to current life and face future challenges. Research Purpose: This study aims to examine the positive attitude transformation process of senior sports services. This study examines the positive attitude transformation process of sports services for grandparents. Research Methods: The study participants were college students enrolled in the physical education course. Data were collected from random observations and interviews with five students. The study was divided into two parts: (a) Observation diary: Analyze through course observation diary, class video records, and group discussions. (b) Focus Interviews: Analyzing data collected from interviews, reflective worksheets, and open-ended surveys. Main Findings: Integrating innovative muti-learning integrate into "senior sports services" effectively promotes. Discussion: This innovative muti-learning is integrated into the " senior sports services " to help college students develop a positive attitude. Suggestions: "Senior sports services " were recommended to be integrated into the curriculum so that students can interact with grandparents in the senior field and learn respect, patience, and an optimistic attitude. Conclusion: Innovative muti-learning through "senior sports services" effectively cultivates positive attitude transformation in college.
Keywords: situated learning, physical literacy, pickleball, cooperative learning, university social responsibility

P2-43

Integrating Behaviour Change Wheel Theory and Brain-Breaks Exercise on Psychological Variables and Sports Participation Among College Students in Harbin, China: A Proposal

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Abstract:
Introduction: In China, recent efforts to enhance sports skills among students have not significantly improved participation or ability levels. In Harbin, the harsh winter climate restricts outdoor sports, negatively impacting the physical and mental health of college students. Objective: This research aimed to (1) Verify the reliability and validity of the Chinese adaptations of the Stress and Coping Questionnaire (SCQ-PE), the Self-Regulation Questionnaire (SRQ-PE), and the Sports Motivation Scale (SMS-PE); (2) Explore the relationships among sports stress coping, self-regulation, and sports motivation among college students; and (3) Evaluate the effectiveness of BCW-informed Brain-Breaks exercise videos on students' psychological variables and sports skills. Methods: The study will confirm the reliability and validity of the selected questionnaires through a rigorous translation and back-translation process. A structural equation model (SEM) will be used to assess the relationships between sports psychological variables, accompanied by a 12-week intervention at Harbin University involving experimental and control groups. Effectiveness will be evaluated using two-factor repeated measures analysis of variance (ANOVA). Discussion: This research will contribute to understanding the relationship between psychological variables and sports participation within the context of a winter climate. Expected Results: Anticipated outcomes include improved sports skills, enhanced mental health, and refined physical education curricula, ultimately fostering greater sports enthusiasm and resilience among college students in Harbin. Conclusion: This study offers valuable insights into promoting mental well-being through innovative exercise interventions tailored to the unique challenges of winter sports participation.
Keywords: Behaviour Change Wheel (BCW), Brain-Breaks Exercise, Psychological Variables, Sports Participation, College Students

P2-44

Mental Imagery Increases Athlete's Mental Fatigue: A Systematic Review

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Abstract:
Introduction: Mental imagery (MI) is a cognitive function that creates multisensory mental images or representations of perceived or remembered objects. We already know that MI can improve sports performance, and we have also found that Mental fatigue (MF) can affect sports performance. However, It has recently been suggested that MI can affect MF. Objectives: Our objective was to evaluate whether MF was due to MI, and to provide an overview of the potential factors underlying this effect. Methods: Six electronic databases, Psychology and Behavioral Sciences, Eric, Medline, Scopus, PubMed, and Web of Science (as of August 28, 2024), were used to search related article of MI and MF. Studies only included RCT studies, and those were not RCTs were excluded. Results: A total of 4 empirical and RCT articles met the including criteria. Participants ranged in age from 18 to 65 years old. The duration of the intervention in the imagery experiments ranged from a single 10-minute session to 6 weeks, and the articles were conducted from different perspectives and using kinesthetic-motor and visual-motor imagery. MF measurement tools performed after intervention including RT, NASA, VAS, EEG, etc. Finally, our systematic review found that MI did not significantly cause MF. Discussion: Due to the limited number of articles, the evidence is still insufficient. It seems there are many mechanism underlying the relationship between MI and MF. Suggestions: Future study may use different samples, participants, research designs, measuring tools to discover the complicated relationship between MI and MF. Conclusion: Our results provided a preliminary evidence of the MI and MF relationship. We suggest future studies may examine this issue by guantitative approach.
Keywords: imagery training, high-cognitive activities, fatigue

P2-45

Effects of Cardiorespiratory Fitness on Working Memory in Middle-aged Adults: An fMRI Study

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Abstract:
Introduction: Taiwan is approaching a super-aged society by 2025, and aging is often associated with a decline in working memory, which may impact the quality of life. Previous studies have shown that high cardiorespiratory fitness (CRF) levels may be associated with better working memory. However, although the relationship between CRF and working memory has been examined, it remains unclear whether CRF is related to behavioral indices and brain functional connectivity related to working memory. Objectives: The purpose of the current study was to investigate the relationship between CRF and working memory performance, as well as the relationship between CRF and functional connectivity during the performance of a working memory task. Methods: Participants aged 45–65 years will be recruited. After assessing their cardiorespiratory fitness using the YMCA submaximal cycle ergometer test, working memory will be examined via a modified n-back task, programmed using E-Prime. Both 1-back and 2-back conditions will be included in the task. The task consists of four blocks with 16 trials each, in which the stimuli will appear in random order. The total task duration is approximately 7 minutes, and reaction time and accuracy will be recorded as indices of behavioral performance. All participants will undergo a whole-brain functional magnetic resonance imaging (fMRI) scan while performing the n-back task using a Siemens 3.0 T MRI scanner (Magnetron Prisma, Siemens, Germany) with a 32-channel head coil. Brain regions activated during the task will be selected for further analysis. Specifically, the block-design fMRI images will be processed using SPM12 to identify regions of interest (ROIs) associated with task-related activations. Discussion: The correlation between behavioral indices (accuracy and reaction time) and CRF, as well as the correlation between functional connectivity and CRF, will be examined using Pearson's correlation.
Keywords: working memory, cardiorespiratory functional connectivity, fMRI

P2-46

A Review of Goal Setting in Athletes: Research Insights and Future Directions

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Abstract:
Introduction: Psychological skills training (PST) is an essential method for helping athletes cope with competitions and training. Among these, goal-setting has been identified by systematic reviews as having significant benefits for athletic performance and psychological variables, with a moderate effect size reported for performance enhancement (Cohen's d = 0.47). However, there is a lack of attention and exploration regarding the research and application of goal setting in Taiwan. Objectives: The purpose of present review is to synthesizes research from the past decade, exploring trends in goal setting within sports and providing guidance for both academic research and practical implementation. Methods: A systematic search was conducted on Google Scholar using "goal setting," "sport," and "athlete" as keywords. Empirical studies published from 2014 to 2024 were included, while review articles were excluded. Results: Fifteen studies were included: three intervention studies, ten cross-sectional studies, one mixed-methods study, and one qualitative study. Findings consistently showed positive associations between goal setting and athletic performance-related variables. Only three intervention studies explicitly used goal setting, with two incorporating sleep education and feedback to examine benefits on motivation, sleep duration, performance, and fear of failure. Conclusion: While goal setting is positively linked to athletic outcomes, most article are cross-section studies, with limited exploration of the effects of goal-setting. Future research should focus on the causation between goal-setting and performance factors. Integrating psychological skills such as mindfulness and self-talk into interventions could further uncover its impact on specific performance outcomes, psychological variables, and emotional regulation.
Keywords: goal-setting, sports, psychological skills training (PST)

P2-47

Evaluating the Psychometric Properties of the Chinese Version of Q-SPACE: A Comprehensive Analysis of the School Physical Activity Environment Questionnaire

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Abstract:
Introduction: The School Physical Activity Environment Questionnaire (Q-SPACE) is critical for assessing the physical activity environments within schools. This study aimed to validate the psychometric properties of the Chinese adaptation of Q-SPACE (Q-SPACE-C) among high school students, highlighting its reliability and validity for understanding adolescent physical activity contexts in China. Objective: This study aimed to translate Q-SPACE into Chinese using a structured forward-backward method and to conduct confirmatory factor analysis (CFA) to evaluate its psychometric properties. Method: The study involved a sample of 586 high school students, consisting of 292 (49.8%) males and 294 (50.2%) females. The translation process ensured high consistency between the original and translated versions. CFA was performed using Mplus 8.0 software to confirm the factorial structure of the Q-SPACE-C.
Results: The content validity index (I-CVI) for all items on the Chinese Q-SPACE-C scale was 1.0, indicating strong content validity. CFA revealed that the physical activity environment encompassed two factors: physical environment (Factor 1) and social environment (Factor 2), with each consisting of 8 items. The factor loadings were robust (>0.77), and the model fit indices indicated an acceptable fit (SRMR=0.037; RMSEA=0.036; 90% CI: 0.027–0.044; CFI=0.990; TLI=0.989). Discussion: The findings demonstrate that the Q-SPACE-C is a reliable and valid measurement tool for assessing the physical activity environment of adolescents in Chinese schools. The satisfactory Cronbach alpha values (Physical Environment: α=0.939; Social Environment: α=0.962) confirm its internal consistency. Conclusion: The validated Q-SPACE-C questionnaire proves to be an effective tool for evaluating school physical activity environments, offering valuable insights for promoting physical activity among adolescents in China.
Keywords: Q-SPACE, Physical Activity, Adolescents, Psychometric Properties, School Environment.

P2-48

The Influence of Social Support on Physical Exercise Motivation in College Students: Examining the Mediating Effects of Self-Efficacy and Psychological Resilience

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Abstract:
Introduction: College students represent a vital resource for future country's development, making their health and well-being critical. Understanding effective exercise interventions and the mechanisms behind motivation internalisation is essential. Research indicated that social support significantly meets students' basic motivational needs, showing the importance of exploring the relationships among social support, exercise motivation, self-efficacy, and psychological resilience to enhance college students' physical activity levels. Objective: This study aims to investigate the influence of social support on physical exercise motivation among college students, focusing on self-efficacy and psychological resilience as mediating factors. Method: 750 college students volunteered and completed a set of questionnaires to examine their social support, self-efficacy, psychological resilience, and physical exercise motivation. Results: Statistical analyses revealed that social support positively correlated with both physical exercise motivation and the mediating factors of self-efficacy and psychological resilience. A structural equation model was employed to evaluate the mediating effects. The findings confirmed the interconnected nature of social support, self-efficacy, and psychological resilience in relation to physical exercise motivation among college students. Social support significantly predicted exercise motivation, while self-efficacy and psychological resilience demonstrated independent and sequential effects on motivation. Conclusion: These results highlight the crucial role of social support in fostering physical exercise motivation. By elucidating the complex relationships among social dynamics, self-efficacy, psychological resilience, and exercise motivation, the study offers insights for tailored interventions that can enhance college students' participation in physical activity and promote lifelong healthy habits.
Keywords: social support, self-efficacy, psychological resilience, physical exercise motivation.

P2-49

Associations of Improper Smartphone Use with Self-esteem in College Students: A Systematic Review

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Abstract:
Introduction: The widespread use of smartphones has significantly affected college students, with inappropriate usage linked to various mental health issues. Recent studies suggested a connection between improper smartphone use and reduced self-esteem, yet systematic reviews highlighting this relationship remain scarce. Objective: This study aimed to systematically investigate the relationship between improper smartphone use and self-esteem among college students while exploring potential mechanisms and moderators influencing this association. Methods: Following PRISMA guidelines, literature was systematically screened and coded by searching PubMed, Web of Science, Scopus, and Embase. Inclusion criteria included studies focused on college students that analysed the relationship between inappropriate smartphone use and self-esteem using either cross-sectional or longitudinal designs. Results: The review identified 11 eligible studies involving 3,458 participants. The findings consistently indicated that improper smartphone use, characterised by overuse, addictive behaviours, and problematic usage, was associated with lower self-esteem levels among college students. Excessive smartphone use was linked to diminished social interactions and a lack of real-life accomplishments, negatively impacting self-perception. Discussion: There exists a significant relationship between inappropriate smartphone use and self-esteem in college students, which showed the need for mental health interventions and educational strategies addressing smartphone usage patterns. Conclusion: The strong correlation between improper smartphone use and self-esteem levels requires further investigation into the causal relationships and regulatory mechanisms involved, providing a more comprehensive framework for enhancing college students' mental health.
Keywords: Problematic smartphone use; Self-esteem; College students; Systematic review.

P2-50

Transitioning from Street Dance Dancer to Coach in China: The Role of Support Systems

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Abstract:
Introduction:The rise of street dance in China has led to the emergence of street dance coaching as a distinct profession. Although the coaching industry is taking shape, its development remains inconsistent. This has prompted interest in how dancers transition to coaching roles and adjust to professional life. The theoretical framework of this study is grounded in the athlete career transition model and dancer identity, outlining career pathways for Chinese street dance athletes. Objectives: This study investigates the support systems necessary for dancers transitioning into coaching positions, providing insights into the transition process and enhancing the theoretical foundations of this field.
Methodology:Employing qualitative research methods, interviews, and literature analysis, the study explores the experiences of street dancers becoming coaches, specifically focusing on the role of support systems. Using thematic analysis, key themes emerged related to emotional support, skill enhancement, social networking, and career development. Findings: The roles of different types of support vary significantly across different stages of career transition, such as motivation development, skill enhancement, and role adaptation. Discussion: The findings indicate that different support types play distinct roles at various stages of career transition, influencing motivation, skill acquisition, and role adaptation. Support systems help alleviate uncertainties and facilitate smoother transitions.
Suggestions / Recommendations:Recommendations include the establishment of structured professional training by dance institutions and the promotion of supportive policies by governmental and cultural departments to sustain the growth of the street dance industry. Conclusion: A support system significantly reduces the stress associated with career transitions and enhances the success rate of dancers becoming coaches.
Keywords: Street Dance; Career Transition; Coaching; Support Systems; China.

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Impact of Interrupting Prolonged Sitting with Short Exercise Sessions on Body Composition and Plasma Metabolomics in Sedentary Obese Adults: A Randomized Controlled Trial

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Abstract

Background and Aims: Obesity resulting from long-term sedentary lifestyles poses a significant threat to human health. This study explores the effects of exercise snack intervention on body composition and plasma metabolomics in sedentary obese adults.

Methods and Results: 27 sedentary obese adults were randomly assigned to the snack group, which engaged in stair sprint exercise, or the Control group. Participants in the snack group were subjected to 4 days of sprint exercises by stair-climbing per week for 12 weeks. Systemic and regional fat mass, epicardial adipose tissue (EAT), abdominal visceral (AVFA) and subcutaneous (ASFA) fat area and plasma metabolomics data were measured before and after intervention. Accordingly, all participants completed each intervention and test without any adverse events. A higher improvement of EAT, AVFA and ASFA in the snack group compared to that in the control group, with a significant interaction effect ($p < 0.05$). The key differential metabolites between the two groups include isoleucine, glycine and serine, where the main enriched pathways are “valine, leucine, and isoleucine biosynthesis” and “glycine, serine, and threonine metabolism.”

Conclusion: The proposed exercise snack protocol effectively reduced the amount of AVFA and EAT. The change in body composition and plasma metabonomics may be associated with the altered pathways of isoleucine, glycine, and serine metabolism.

Keywords: Exercise snacks; Obese adults; Plasma metabolomics.

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Psychometric Properties of the Chinese Version of Basic Needs Satisfaction in Sport Scale (BNSSS)

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Abstract:

Introduction: The Basic Needs Satisfaction in Sport Scale (BNSSS), developed by Ng et al. (2011), has demonstrated strong reliability and validity. Objective: This study aimed to translate and validate the Chinese versioned BNSSS by examining its reliability and validity among Chinese athletes. Method: The translation of the Chinese version BNSSS (BNSSS-C) involved a rigorous process including forward and backward translations by a team of five bilingual professionals comprising translation experts and sport psychology researchers. A total of 450 questionnaires were distributed to Chinese athletes; 416 valid responses were retained after screening. Confirmatory factor analysis (CFA) was performed using Mplus 8.0 to evaluate the scale's validity. Results: The BNSSS-C retained the original scale's four factors and twenty items, showing strong alignment with the original version. Fit indices such as RMSEA and SRMR indicated satisfactory model fit. Composite reliabilities ranged from 0.923 to 0.941, affirming the robustness of the scale's reliability. Discussion: The findings confirm that the BNSSS-C is a valid and reliable tool for measuring basic needs satisfaction in sports among Chinese athletes, mirroring the effectiveness of the original scale. Conclusion: The validated BNSSS-C demonstrates strong psychometric properties, making it suitable for use in research and practice within the Chinese athletic context.

Keywords: Basic Needs Satisfaction; BNSSS; psychometric properties; Chinese athletes; reliability; validity.

ABSTRACTS

Extended Abstract

Construction of competency evaluation index system for CUBA Basketball Coaches

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Abstract:

Introduction:

The China university basketball association league (CUBA) was launched in 1998 and has been held for 24 sessions so far. It has gradually evolved into a top college league with more than 1,600 participating teams each year, covering 32 provinces, municipalities, and autonomous regions in China, and it is divided into three levels. CUBA has become the "basketball palace" in the minds of college students.

With the rapid development of the CUBA college basketball league, the league urgently needs highly skilled coaches to train top-level teams. Therefore, determining the abilities required for CUBA basketball coaches to meet the demands of the growing league has become an issue that warrants significant attention today.

From the perspective of human resources, the competency structure of CUBA basketball coaches serves as an important reference for determining their ability to complete high-quality tasks. This article uses questionnaire surveys, Delphi method, hierarchical analysis, and the fuzzy comprehensive evaluation method to construct a competency evaluation index system for CUBA basketball coaches, and provides theoretical descriptions and interpretations of each indicator based on empirical analysis.

Objectives:

(1) The competency evaluation index system for CUBA basketball coaches was constructed, and its index weights were clarified.

(2) Based on the constructed competency evaluation index system, an empirical evaluation and analysis of CUBA basketball coaches' competencies were conducted, and constructive suggestions for improving coaches' competencies were proposed.

Method:

This study formulated the initial questionnaire through two rounds of expert opinions. In the third round, the AHP (Analytic Hierarchy Process) method was employed to determine the weights of each indicator. The questionnaire was distributed to 10 industry experts to judge and score the importance of each indicator. The collected data were analysed and processed. After three rounds of expert questionnaires, the final data were used to construct the "pairwise judgment matrix," and the Yaahp hierarchical analysis software was applied to calculate the weights of indicators at each level and to verify the consistency of the indicator weights. Finally, the CUBA basketball coach competency evaluation index system was established, and an empirical study was conducted to test the model's effectiveness on CUBA coaches.

Major Findings:

(1) The CUBA basketball coach competency evaluation index system consists of 4 first-level indicators and 26 second-level indicators:

A1 Professional Basic Ability: special technical ability, professional theory and its application ability, innovation ability, talent discovery ability, management ability, and interpersonal communication and coordination ability;

A2 Training Guidance Ability: the ability to formulate scientific training plans, injury prevention ability, technical action demonstration ability, pre- match adjustment training ability, ability to stimulate athletes' training interest, injury rehabilitation means application ability, and explanation ability;

A3 Competition Guidance Ability: accurate diagnosis of pre-match competitive state, competition information collection ability, competition plan ability, competition tactical arrangement ability, on-the-spot game command ability, post-match summary and analysis ability, and the ability to control athletes' emotions;

A4 Personal Characteristics: team awareness, love for the cause, cohesion, compliance with rules, sense of responsibility, and ideological and political literacy.

(2). The weights of the first-level and second-level indicators were calculated. The ranking order of the first-level indicators is personal characteristics, professional basic ability, training guidance ability, and competition guidance ability. The top five second-level indicators by weight are ideological and political literacy, ability to formulate training plans scientifically, special technical ability, team awareness, and professional theory and its application ability. The bottom five indicators are application ability of injury rehabilitation means, pre-match training adjustment ability, injury prevention ability, innovation ability, and interpersonal communication and coordination ability.

(3). An empirical study was conducted using Fuzzy Sets to evaluate CUBA basketball coaches. Taking a specific coach as the evaluation object, the CUBA basketball coach competency evaluation index system and the comment set X were used to create an evaluation scale to validate the index system. The coach competency evaluation form was distributed to 10 experts, and the coach's competency was comprehensively evaluated using the AHP method. The results showed that the coach's average competency score was 80 points, which falls within the 80–89 range. This indicates that the coach's competency standard is good, verifying the feasibility and rationality of this study.

Main References:

1. Sun Zhe. (2018) Construction and empirical research on the competency model of professional basketball coaches in my country. Beijing Sports University.
2. Wu Yang. (2017) Research on the coaching ability and influencing factors of Chinese tennis coaches. Shanghai Institute of Physical Education
3. Mo Tianlong. (2021) Research on the construction of the evaluation index system of basketball E-level coaches. Chengdu Sports University, DOI:10.26987/d.cnki.gcdtc.2021.000180.
4. Han Guogang. (2021) Preliminary construction of the evaluation system of the coaching ability of college basketball coaches. Shandong Institute of Physical Education, DOI:10.27725/d.cnki.gsdty.2021.000144.

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