

iSHE-SC 21

# International Sports, Health and Emerging Technologies Summit Conference

27 - 29 October 2021

*Program Book*

A CONFERENCE BY



ORGANIZED WITH



**INSTITUT  
SUKAN  
NEGARA  
MALAYSIA**

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**CYBERLYNX**  
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## WELCOME MESSAGE

### CHAIR OF ISHE-SC 2021



Welcome to the iSHE-SC 2021 online hybrid summit conference, where a new experience awaits. I anticipate long and stimulating days full of intellectual excitement, interactions with colleagues, friends, and new collaborators, mentees, and mentors. The virtual conference dedicated to addressing the challenges in the areas of sports science, exercise, health, sports engineering, and technology including other sport-related area, thereby presenting a consolidated view to the interested researchers in the aforesaid fields.

iSHE-SC 2021's theme is 'Bridging Sports Excellence in Academia, Practitioner and Industry'.

Never before has the collaboration between academia, practitioner and industry been as necessary as it is now, in the post Covid-19 era. With this theme we want to highlight the importance of engagement between a range of academic disciplines, professional practitioner, and industry stakeholders relevant to sports. I am convinced that you cannot separate these three important stakeholders in silos, one from the other. Together, we will exchange knowledge about various sports development area and discuss the ways to bridge the gaps for sports excellence. Collaboration, in its many dimensions, has been a core value of the development of this conference, and I hope that everyone feels included and welcome to the conference.

At the time of writing these lines, iSHE-SC 2021 has nearly 300 delegates from various countries. Roughly 36% of these delegates are students. We have a diverse program that includes 8 international keynote presentations from academia, 5 keynote presentations from practitioners, 4 keynote presentations from industry stakeholders, 2 oral symposia, 3 panel discussions, and nearly 160 general oral sessions.

Many people have worked very hard for the organization of this conference. Special thanks are needed to the Scientific Committee and the conference secretariat. All of whom have generously worked to make this conference rich in content and pleasant for the delegates. I hope that all iSHE-SC 2021 delegates have a great experience and that this conference leaves a legacy, inspiring young sports scholars, promoting knowledge-exchange and collaboration, and leading to a real impact in our vision to cultivating the culture of 'sports excellence' – Selamat Datang!

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PROF. DR. MOHAD ANIZU MOHD NOR

*Chair*

iSHE-SC 2021

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## CONFERENCE SCHEDULE

ISHE-SC 2021 PARALLEL SESSION

**DAY 3**

29 OCTOBER 2021

An abstract graphic in the bottom right corner consisting of several overlapping circles with a color gradient. The colors transition from light blue on the left, through purple and red, to yellow and orange on the right. The circles are semi-transparent, creating a layered effect.

## PARALLEL SESSION 6 | ROOM 4

PERFORMANCE ANALYSIS IN SPORTS

DAY 3 | 29 OCTOBER 2021 | 14:45 – 16:35 [MYT]

**SESSION LINK** <https://meet.google.com/zbz-yuig-zwo>

### CONFERENCE / PAPER ID

### TITLE

ISHE144	Effects of Postpartum Exercise-Based Intervention on Maternal Weight Retention: A Meta-analytical Review <b>Main author / Presenter:</b> Iqbal Norhamazi
ISHE160	Toxic Sports: Unscreened Diseases are Threatening Wellbeing From Conception to Completion of Neonatal Screening Program <b>Main author / Presenter:</b> Mossad Abdelhak Shaban Mohamed
ISHE062	The Prevalence of Sport Injury Prevention Knowledge and Management among UiTM Female Athletes <b>Main author / Presenter:</b> Mohammad Syamirul Danial Mohd Shaharudin
ISHE087	The Relationship of Anthropometry, Body Composition and Sarcopenia Parameters with Exercise Capacity in Older Adults with Sarcopenia <b>Main author / Presenter:</b> Maria Justine
ISHE032	A and B-mode Ultrasound Measures of Muscle Thickness are Valid Methods to Quantify Muscle Size <b>Main author / Presenter:</b> Noor Fatin Nazieffa Fakri

# ABSTRACT

## ISHE-SC 2021 PROCEEDINGS

### ISHE144 Effects of Postpartum Exercise-Based Intervention on Maternal Weight Retention: A Meta-analytical Review

Iqbal Norhamazi, Adam Linoby, Rozita Abd Latif, Wan Norsyam Wan Norman and Zainie Binti Aboo Bakkar

Email: [linoby@gmail.com](mailto:linoby@gmail.com)

Exercise has been suggested as a way to manage the undesirable effects of postnatal weight retention. The purpose of this meta-analytical review was to ascertain the effectiveness of exercise-based interventions (ranged from one day to 6-month after delivery) in managing postpartum weight gain, with the following goal of identifying more effective intervention strategies. We searched electronic databases (Web of Science, Scopus, PubMed, Cochrane Central, and Google Scholar) for published randomized or non-randomized controlled trials examining the effects of exercise interventions on postpartum weight retention. The publication bias was assessed using the Revised Cochrane Risk-of-Bias tool for randomized trials (RoB-2), while the evidence's quality was evaluated by the GRADEpro tool. An additional 2 subgroup analyses were conducted to compare study treatments and exercise modalities, including the total duration of exercise-based intervention and type of exercise intervention. Fifteen studies met the eligibility criteria, involving 932 participants, 593 of whom were in the exercise intervention group and 482 of whom were in the control group. The principal meta-analysis combined all 13 studies, which discovered SMD on weight loss of approximately -3.12 kg (95% CI: -3.48 to -2.76). Further analysis revealed that structured and consistent exercise using exercise tools and/or tracker such as heart rate monitor or exercise tracker/wearable (SMD: -5.11 kg; 95% CI: -6.02 to -4.21, I<sup>2</sup> = 0%) and combination with rigorous dietary intervention (SMD: -5.69 kg; 95% CI: -5.15 to -5.25, I<sup>2</sup> = 0%) was the most effective interventions for weight loss in postpartum women.

**Keywords:** Systematic review, Meta-analysis, Exercise, Postpartum, Weight loss

### ISHE160 Toxic Sports: Unscreened Diseases are Threatening Wellbeing From Conception to Completion of Neonatal Screening Program

Mossad Abdelhak Shaban Mohamed, Abdelhalim Abdelbaset Taher, Syed Abdul Khaliq Bin Abd Hamid, Mohamed Mossad Abdelhak Shaban

Email: [mossadshaban@iium.edu.my](mailto:mossadshaban@iium.edu.my)

Medical Screening is a basic test, which identifies rare and severe health problems. A newborn screening program (NSP) can detect disorders before they become symptomatic. Early treatment of these endocrine disorders can prevent intellectual disability and life-threatening crises. The hearing impairment will precipitate neurodevelopmental delay, mainly language and related skills among infants. Newborn screening for hearing loss can be done as a point-of-care screening. Universal screening for hearing loss by otoacoustic emissions or automated auditory brainstem response has a high sensitivity allowing early identification and intervention to improve the neurodevelopment among infants. Critical congenital heart disease (CCHD) can result in death, organ failure, or severe disabilities. The screening via pulse oximeter, perfusion index and echocardiography, prevent delayed diagnosis of CCHD. Developmental hip dislocation is screened clinically by Ortolani and Barlow's manoeuvres that have been the standard for detecting hip instability in newborns. Recently, ultrasound imaging of the hip in infants less than five months suggested as a possible extra tool for screening. Early screening of treatable and detectable diseases through newborn screening programs allows for timely intervention hence optimise outcomes.

**Keywords:** Neonatal screening, Inborn error of metabolism, hearing screening, cardiac screening, Developmental Hip Dislocation screening.





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