INTERNATIONAL CONVENTION ON SCIENCE, EDUCATION & MEDICINE IN SPORTS 2012

GLASGOW, SCOTLAND

19-24 JULAI 2012

DR. OOI FOONG KIEW
PPSP

ICSEMIS 2012

Sport ... inspiring a learning legacy

International Convention on Science, Education & Medicine in Sport

Scottish Exhibition & Conference Centre, Glasgow, UK

19 - 24 July 2012

FINAL PROGRAMME

#ICSEMIS2012

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ICSSPE

Crowne Plaza: Castle

S80 Historical Aspects of Doping and Anti Doping: The Failure of Policy and Morality

Chair: Gertrud Pfister (Denmark)

Speakers: Krüger(Germany), Paul Dimeo (UK), Thomas Hunt (USA), Verner Møller (Denmark), Terence Todd (USA) & Jan Todd (USA)

Free Communications

15:45 - 17:00

Clyde Auditorium

Physical Activity and Health 11

15:45 FC46.1 "Everyone in the Class Getting Along" - Adolescent Girls' Views on the Influence of the School Social Environment on Their Physical Activity Behaviour

Niven, AG (UK); Henretty, J (UK); Fawkner, SG (UK)

15:57 FC46.2 Comparability of Raw Acceleration Output from the ActiGraph GT3X+ and GENEA Accelerometry-Based Activity Monitors

Rowlands, AV (Australia); Stiles, VH (UK)

16:09 FC46.3 The Power of Play: A Philosophical Investigation of the Relation Between Play and Physical Activity Focused on Adults

Felkers, IR (Netherlands); Mulder, EMJ (Netherlands)

16:21 FC46.4 High intensity interval training: A time saving alternative to traditional exercise prescription in a real world setting

Draper, N (New Zealand); Lunt, H (New Zealand); Marshall, H (New Zealand); Logan, F (New Zealand); Cotter, J (New Zealand); Hamlin, M (New Zealand); Shearman, J (New Zealand); Kimber, N (New Zealand); Blackwell, G (New Zealand); Frampton, C (New Zealand)

16:33 FC46.5 The Bilateral sEMG Features on Taichi Practitioners Lower Extremity in Different Levels

Zhu, D (China)

Lomond Auditorium

Physical Activity and Health 12

15:45 FC47.1 The Effects of Aerobic Callisthenics Exercise on Interleukin-2 and Interleu of Sub-health Fatigue Stat University Female Students

Zhao, X (China)

15:57 FC47.2 Social Motivational Influences on the Health and Physical Activity Behaviours of Middle Aged Adults. Who Influences it and How?

Keegan, RJ (UK); Girling, MS (UK); Henderson, H (UK); Middleton, G (UK)

16:09 FC47.3 Effects of Combined Aerobic Dance Exercise and Honey Supplementation on Blood Bone Metabolism Markers in Adult Women

Ooi, FK (Malaysia); Marhasiyah, R (Malaysia); Wan Zuraida, WAH (Malaysia)

16:21 FC47.4 Philosophical Analysis of Sports Leisure's Essential Attributes

Zhou, AG (China)

16:33 FC47.5 Kansei Engineering Design of Sports Running Shoes

Subic, A (Australia); Clifton, P (Australia); Fuss, F (Australia)

Forth Auditorium

Physical Activity and Health 13

15:45 FC48.1 Effects of Mechanical loading and Hormones on Exercise Preventing Diabetic Osteoporosis in Postmenopausal Women with Type 2 Diabetes

Zheng, QY (China); Borer, KT (United States); Li, SC (China)

15:57 FC48.2 Effects of High-Intensity Intermittent Running Exercise on Obese Individual

Lau, PWC (Hong Kong); Wong, DPL (Hong Kong); Liang, Y (Hong Kong)

ABSTRACT

Effects of combined aerobic dance exercise and honey supplementation on blood bone *metabolism markers in adult women*

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BACKGROUND: To date, the effectiveness of combined aerobic dance exercise and honey supplementation on bone metabolism markers in women is unclear. **OBJECTIVE:** The objective of this present study was to investigate the effects of combined aerobic dance exercise and honey supplementation on blood bone turnover markers and parathyroid hormone in adult women. **METHODS:** Forty four subjects, healthy sedentary women (25-40 year-old) were age and weight matched, and subsequently being assigned into four groups with n=11 per group: Control group (C), honey supplementation group (H), aerobic dance exercise group (Ex) and combined aerobic dance exercise with honey supplementation group (HEx). Aerobic dance exercise was carried out for one hour per session, three times per week for eight weeks. Honey drink was consumed by H and HEx groups, in a dosage of 20g of Malaysian Gelam honey diluted in 300ml of plain water, for 7 days per week for a total of 8 weeks duration. In HEx group, the subjects were required to consume honey drink 30 minutes before performing exercise on the exercise days. Before and after 8 weeks of experimental period, blood samples were taken in order to determine the concentrations of serum total calcium, osteocalcin (bone formation marker), serum C-terminal telopeptide of type 1 collagen (1CTP) (bone resorption marker), and parathyroid hormone (PTH). **RESULTS:** At the end of 8 weeks of experimental period, there was significant increase in serum total calcium in H group. The percentage of increment in 1CTP, a bone resorption marker, and PTH concentrations in HEx group were the lowest compared to the other experimental groups. **CONCLUSION:** The results of present study suggest that combination of aerobic dance exercise and honey supplementation may elicit effects on reducing the increment in bone resorption, compared to aerobic dance exercise or honey supplementation alone in sedentary adult women.

Key words: Aerobic dance exercise, honey supplementation, bone turnover markers

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Effects of Sodium-Enriched Acacia Honey Drink Supplementation during Rehydration after Exercise on Subsequent Running Performance in the Heat

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Mode of presentation: Poster

Keywords: sodium-enriched honey drink, glycogen depletion phase, rehydration, time trial.

BACKGROUND: To date, the effectiveness of sodium-enriched Malaysian Acacia honey drink as post-exercise supplementation on running performance has not been investigated. **OBJECTIVE**: To investigate the effectiveness of sodium-enriched Acacia honey drink, as a post-exercise recovery aid for subsequent running performance in the heat. **METHODS**: Ten subjects (age: 21.8 ±1.4years) participated in this randomized cross-over study. All subjects performed 3 trials, in each trial subjects went through a glycogen depletion phase (Run-1), 2-hours rehydration phase and time trial running phase (Run-2). In Run-1, subjects ran on a treadmill at 65% VO_{2max} in the heat (31°C, 70% relative humidity) for 60 min. During 2-hours rehydration phase, subjects drank either plain water (W), honey drink (H) or sodium-enriched honey drink (HS) with amount equivalent to 150% of body weight loss in 3 boluses (60%, 50% and 40% subsequently) at 0min, 30min and 60min. In Run-2, the longest distance covered in 20 minutes was recorded. Blood and urine samples were collected for determining the subjects' physiological responses. Two-way repeated measured ANOVA and one-way ANOVA were used for analysis. **RESULTS**: The running distances were 3420±350m in H, 3390±390m in HS and 3120±340m in W. Honey drink (H) and HS elicited +9.6% (300m) and +8.7% (270m) compared to W respectively in time trial performance. In general, there were significantly ($p<0.05$) higher values in H and HS trials in plasma glucose, insulin, serum and urine osmolality compared to W respectively during rehydration and Run-2. **CONCLUSION**: Rehydration with HS drink elicited similar beneficial effect as H drink in running performance and physiological parameters in the heat. Both Acacia honey drink and sodium-enriched Acacia honey drink can be recommended for rehydration purposes in athletes who train and compete in the hot environment.

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International Convention on Science, Education and Medicine in Sports (ICSEMIS) 2012-Scottish Exhibition and Conference Centre, Glasgow, Scotland, 19-24 July, 2011