Volume 15 · Supplement 1 · September 2019

Sport Sciences for Health

Founded by the Faculty of Exercise Science, University of Milan

Official Journal of the Italian Society of Exercise and Sport Sciences

EDITORS-IN-CHIEF
F. Esposito
F. Schena

GUEST-EDITOR
A. Paoli

SISMES
Springer

Sport Sciences for Health

Official Journal of the Italian Society of Exercise and Sport Sciences

Springer

Sport Sciences for Health

Aims and Scope

Sport Sciences for Health is an international, interdisciplinary journal devoted to researchers and practitioners involved in sport and physical activity for health. Areas of interest include sport, physical activities, sports medicine, healthy lifestyles, motor behavior, physical education and adapted physical activity with different methodological approaches such as physiological, clinical, biomechanical, performance, psychological, educational, social and learning perspectives. The journal also deals with the mechanisms through which exercise can prevent or treat chronic degenerative disease contributing to prevention and personalized treatment of specific diseases and health maintenance with a translational perspective. The journal publishes original research, case studies and reviews.

Sport Sciences for Health is the official journal of the Società Italiana delle Scienze Motorie e Sportive (SISMeS), an Italian scientific society that aims to promote, support and disseminate knowledge and innovations in the sciences of sport and physical activity for health and quality of life.

Copyright Information

For Authors

As soon as an article is accepted for publication, authors will be requested to assign copyright of the article (or to grant exclusive publication and dissemination rights) to the publisher (respective the owner if other than Springer Nature). This will ensure the widest possible protection and dissemination of information under copyright laws.

More information about copyright regulations for this journal is available at www.springer.com/11332

For Readers

While the advice and information in this journal is believed to be true and accurate at the date of its publication, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may have been made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e.g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, on video disks, etc., without first obtaining written permission from the publisher (respective the copyright owner if other than Springer Nature). The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

Springer Nature has partnered with Copyright Clearance Center's RightsLink service to offer a variety of options for reusing Springer Nature content. For permission to reuse our content please locate the material that you wish to use on link.springer.com or on springerimages.com and click on the permissions link or go to copyright.com and enter the title of the publication that you wish to use. For assistance in placing a permission request, Copyright Clearance Center can be contacted directly via phone: +1-855-239-3415, fax: +1-978-646-8600 or e-mail: info@copyright.com.

Journal Website

www.springer.com/11332
Electronic edition: link.springer.com/journal/11332

Subscription Information

Sport Sciences for Health is published 3 times a year. Volume 15 (3 issues) will be published in 2019.

ISSN: 1824-7490 print
ISSN: 1825-1234 electronic

For information on subscription rates please contact Springer Nature Customer Service Center: customerservice@springernature.com

The Americas (North, South, Central America and the Caribbean)
Springer Nature Journal Fulfillment
233 Spring Street, New York
NY 10013-1578, USA
Tel.: 800-SPRINGER (777-4643);
212-460-1500 (outside North America)

Outside the Americas
Springer Nature Customer Service Center GmbH Tiergartenstr. 15, 69121 Heidelberg, Germany
Tel.: +49-6221-345-4303

Advertisements

E-mail contact: advertising@springer.com

Disclaimer

Springer Nature publishes advertisements in this journal in reliance upon the responsibility of the advertiser to comply with all legal requirements relating to the marketing and sale of products or services advertised. Springer Nature and the editors are not responsible for claims made in the advertisements published in the journal. The appearance of advertisements in Springer Nature publications does not constitute endorsement, implied or intended, of the product advertised or the claims made for it by the advertiser.

Office of Publication

Springer-Verlag Italia S.r.l.
Via Decembrio 28
20137 Milan, Italy

Registrazione del Tribunale di Milano
n. 143 del 25 febbraio 2005

Springer Nature is part of
Springer Science+Business Media

SISMES
SOCIETÀ ITALIANA DELLE SCIENZE MOTORIE E SPORTIVE

XI NATIONAL CONGRESS

Research and Training Applied to Movement and Sport Sciences
Bologna, 27–29 September 2019

CONGRESS PRESIDENT

Samuele Marcora

SCIENTIFIC COMMITTEE

Antonio Paoli Antonio La Torre Angela di Baldassarre Carlo Baldari
Dario Colella Massimo Lanza Stefania Orrù

LOCAL SCIENTIFIC COMMITTEE

Laura Bragonzoni Andrea Ceciliani
Simone Ciacci Antonio Cicchella Matteo Cortesi Rocco Di Michele
Giorgio Gatta Pasqualino Maietta Latessa David Neil Manners Gabriele Semprini

ORGANIZING SECRETARIAT

Akesios Group Via Cremonese, 172, Parma

Hosted by the Department for Life Quality Studies and the Department of Biomedical and Neuromotor Sciences of Alma Mater Studiorum – University of Bologna

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DIPARTIMENTO DI
SCIENZE BIOMEDICHE E NEUROMOTORIE

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DIPARTIMENTO DI SCIENZE PER LA QUALITÀ DELLA VITA

TABLE OF CONTENTS

Disclosure Statement

This supplement was not sponsored by outside commercial interests.

Conflict of Interest Statement

Antonio Paoli, Guest Editor, declares that he has no conflict of interest related to the publication of this Supplement.

Sport Sci Health (2019) 15 (Suppl 1):S1–S117
https://doi.org/10.1007/s11332-019-00578-6

ABSTRACTS

SISMES XI NATIONAL CONGRESS

Bologna, 27–29 September 2019

MARCELLO FAINA AND ARSENIO VEICSTEINAS OPENING LECTURE

Thinking and action: a cognitive perspective on self-regulation during endurance performance

N. Brick

Ulster University, Derry, UK

Whole-body endurance events present unique and sometimes unexpected challenges to athletes. Endurance activity is often associated with exercise-induced pain and discomfort, for example, during the pursuit of personally held goals. To optimise performance, endurance athletes are required to manage this discomfort and to regulate their work rate by making goal-directed decisions regarding when and how they invest their energy. As such, endurance performance can be considered an example of a self-regulated behaviour, or the ability to successfully monitor and control one's thoughts, feelings, and actions in accordance with the demands of a task. Self-regulation involves change to bring one's thinking and behaviour in line with often consciously desired standards and goals. In essence, this requires both 'thinking' (e.g. engaging cognitive strategies, such as motivational self-talk or relaxing) and 'thinking about thinking' (i.e. meta-cognition) to plan, monitor, and adapt situationally-appropriate cognitive strategies during endurance performance. In this keynote address, Dr Noel Brick will provide a cognitive perspective on the processes required to optimise endurance performance. He will consider the roles of attentional focus and cognitive strategies in the self-regulation of endurance performance. He will also present evidence to suggest that what an athlete thinks about has an important influence on effort perceptions, physiological outcomes, and, consequently, endurance performance. This address will also provide an account of how an athlete might control their cognitions and focus attention during an endurance event. As such, it will propose that effective cognitive control during performance requires both proactive, goal-driven processes and reactive, stimulus-driven processes. Finally, the role of metacognition during endurance activity will also be considered. Metacognition is an essential component of self-regulation and its primary functions are to monitor and control the thoughts and actions required for task completion. The implications for endurance performance, and longer-term endurance activity behaviour will be discussed.

INVITED LECTURE

Reflections on the attempt to run a < 2 hour marathon

A. Jones

University of Exeter, Exeter, UK

On 6th May, 2017, exactly 63 years after Sir Roger Bannister ran the first sub-4 min mile, three elite distance runners attempted the (almost) unthinkable: to run a 26.2 mile marathon in less than 2 hours. This event, performed at the Formula 1 race track in Monza, Italy, was the culmination of more than 2 years of scientific development work by Nike and its associates (including the presenter). The existing marathon world record for men stood at 2 hours, 2 minutes and 57 seconds and there had been much speculation amongst sports scientists and the athletic community over whether a sub-2 hour marathon may be humanly possible (and, if so, when and how it might occur). In the 'Breaking 2' event, Eliud Kipchoge of Kenya ran 2:00:25, just one second per mile shy of a sub-2 hour performance. In this presentation, I shall describe the physiological limitations to human endurance exercise performance and outline the strategy employed by the Nike team with regard to athlete selection and creation of the optimal conditions to make the sub-2 attempt viable. This will include information on the battery of laboratory and field-based physiological tests used to identify the athletes most likely to achieve the feat and insight into consideration given to the environmental, training, course, pacing, drafting, biomechanical and nutritional factors that can impact marathon performance.

OP11-3
The children's right to move: Towards a phenomenology of everyday active habits

A. Borgogni

Department of Human and Social Sciences, University of Bergamo (Italy)

Purpose: The aim of the presentation is to propose and discuss the children's movement as a right.
Methods: A review of the most relevant international documents and scientific papers discussing or citing the rights-based approach to sport, physical activity, and movement as all-encompassing concept has been carried out with the aim to analyse conventions, charts, and declarations. These documents and papers have been compared with data from several sources. Thereafter, a usual day of an 8-year-old child is described through a phenomenological approach. The description emphasizes the possibility of the child to be, or not to be, active in everyday routines. This decision has been taken, from one side to highlight the complexity of the phenomenon and the relevance of the choices of the adults (parents, relatives, teachers, trainers, animators) in promoting the movement, from the other side to highlight the significance of geographical and sociocultural variables influencing the possibilities to be active in everyday life.
Results: The rights-based approach to physical activity had been used in relation with the right of disabled people and women to practice sport. Even if used in few international documents and rarely in scientific papers, more recently, the concept of right to move, including play, has observed a growing attention through the interpretations based on the capabilities approach and, secondary, on unperceived rights thus unfolding the connection between the right to move and the possibility to choose.
Conclusions: Considering the movement as a right, leads to a radical shift of attention from organized sport and physical activities towards everyday active habits. This change, focussing on children's real or potential lives, requires a true human-centered phenomenological approach aiming at transdiciplinary studies.
References
1. Bloodworth A et al. (2012) Sport, physical activity and well-being: an objectivist account. Sport, Education and Society, 17: 497-514
2. Teixeira A (2012) Human Rights Based Approach to Grassroots Sports and Physical Activities. Copenaghen: ISCA
3. Tinning, R. (2009). Pedagogy and human movement: Theory, practice, research. Londra e New York: Routledge

OP11-4
Effects of 12-week extracurricular multilateral training on body image perception among youth

F. Fischetti, F. Latino, S. Cataldi, G. Greco

Department of Basic Medical Sciences, Neuroscience and Sense Organs, University of Bari "Aldo Moro", Italy

Purpose: Body image is closely linked to psychological well-being during adolescence. Physical activity is effective for improving body image disturbance and to date limited body image interventions were undertaken through physical education. Therefore, the aim of this study was to investigate the effects of a supervised 12-week extracurricular multilateral training intervention on body-image dissatisfaction and body-size self-perception.
Methods: 100 students, aged 14-15 years, were assigned to multilateral training group (MG, n = 50; 25 M, 25F) that did not practice any extracurricular physical activity in the period before the study, or Control group (CG, n = 50; 25 M, 25F) that regularly practiced team sports outside the school hours for at least 3 years. At baseline and after 12 weeks, anthropometric measurements and two standardized psychological tests to assess the degree of personal satisfaction towards their body were administered (i.e., Body uneasiness test (BUT) and contour drawing rating scale (CDRS)).
Results: After multilateral training intervention, significant differences in the total MG for body weight (-1.36 ± 2.03 kg, $p < 0.0001$), BUT (-0.54 ± 1.49, $p = 0.032$) and CDRS (-1.26 ± 3.92, $p = 0.037$) scores were detected. Females of the MG showed significant improvement in body weight (-1.49 ± 2.22 kg, $p = 0.003$) and BUT (-0.76 ± 1.56, $p = 0.040$), whereas males showed improvement in body weight (-1.24 ± 1.85 kg, $p = 0.003$) alone. CG showed no significant changes ($p > 0.05$).
Conclusions: Findings suggest that a multilateral approach, consisting in supervised exercises aimed to develop conditional and coordinative motor abilities, could increase the satisfaction with their bodies in adolescents. However, girls always showed higher scores than boys and this indicates greater dissatisfaction and uneasiness with their bodies. Thus, to aid positive psychological health in adolescents, extracurricular activities such as multilateral training should be considered by physical educators.
References
1. Fischetti F et al. (2019) Gender Differences in Body Image Dissatisfaction: The Role of Physical Education and Sport. Journal of Human Sport and Exercise, in press. doi: https://doi.org/10.14198/jhse.2020.152.01
2. Lawler M, Nixon E (2011) Body dissatisfaction among adolescent boys and girls: the effects of body mass, peer appearance culture and internalization of appearance ideals. Journal of Youth and Adolescence 40: 59-71

OP11-5
The trends of screen-time and motor coordination in adolescent: a preliminary study

M. Giuriato[1], V. Biino[1,2], M. Lanza[2], F. Schena[2]

[1]Department of Human Sciences, University of Verona;
[2]Department of Neurosciences, Biomedicine and Movement Sciences, University of Verona

Purpose: Evidence suggested that screen-time based on sedentary habits (smartphone, laptop, tablet, electronic device, etc.) was associated with poorer health outcomes among adolescents[1]. The prevalence of these habits was constantly increasing, with over 50% of adolescent exceeding the public health screen time recommendation of 2 h/day or less. The aim of the study was to assess the trend of screen-time and motor coordination in adolescents of 15, 17 and 19 years.
Methods: 130 adolescent (15 years-old = 31; 17 years old = 35; 19 years old = 30) were involved in this pilot study. The screen time was assessed with a blind questionnaire that indicates the time of use of the electronic device during the day but not associated with the subject. Furthermore, motor coordination was assessed with the KTK test (Raw score - RS).
Results: Results suggest a difference in RS for gender (M = 279.73; F = 268.40; p = 0.005) and age (15 = 261.19; 17 = 275.09;

Author index

D

E

F

G

Sport Sciences for Health

Volume 15 · Supplement 1 · September 2019

SISMES – XI National Congress

Research and Training Applied to Movement and Sport Sciences
Bologna, 27–29 September 2019

Further articles can be found at link.springer.com

Abstracted/Indexed in *SCOPUS, Google Scholar, EBSCO, CSA, Academic OneFile, Current Abstracts, Expanded Academic, OCLC, OmniFile, Science Select, SCImago, and Summon by Serial Solutions*

Instructions for authors for *Sport Sci Health* are available at www.springer.com/11332

Springer