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BOOK OF ABSTRACTS

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chronic exercise training and/or conditions for efficient fatty acid utilization. Chronic exercise has been shown to increase IMCL in parallel with improved IR, thus leading to a paradigm, known as the 'athlete paradox' where IMCL accumulation per se does not directly affect insulin action but where this negative effect appears to be linked with non utilization of the fatty acid reservoir and with the accumulation of metabolically active lipid intermediates. Among others, diacylglycerol (DAG) have been largely implicated in cellular and animal studies. In cross-sectional and intervention studies, we measured comprehensive profiles of distinct molecular species of DAG in skeletal muscle of obese, normal weight and athletic human subjects. Total DAG content was higher in athletes and was positively associated with insulin sensitivity. Furthermore, dissaturated DAG were significantly lower in highly insulin sensitive athletes compared to their insulin resistant counterpart. Our results, in accord with other recent studies, point to the fact that some DAG moieties are particularly abundant in human skeletal muscle: C16:0/C18:0, C16:0/C18:1 and Di-C18:0. Summed together, these three DAG species account approximately for 80% of total DAG. These results suggests that it is not the overall content of DAG that may be deleterious but that particular DAG moieties, even in smaller amounts, may carry the lipotoxic effect. Thus, DAG content in chronically exercised insulin sensitive muscle may represents another athlete paradox.

09:50 - 11:20

Oral presentations

OP-SH11 Physical Education and pedagogics 2

QUALITATIVE ANALYSIS OF THE INTERACTIVE DECISIONS OF THREE COACHES INVOLVED IN A "START TO RUN" SESSION

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Introduction A growing number of programs are implemented to enable a smooth resumption of physical activity. "Start to run" is a running program promoted by the athletics federation that has gained a great notoriety in Belgium. It proposes sessions of 10 weeks during which participants are trained to run 5 km without stop (10 km for those who are not beginners). No data seems to be available about the coaching process in this specific context of active leisure. The purpose of this study was to enlarge knowledge on this topic. Methods Based on the principles of the qualitative research, we analyzed three sites: three groups involved in a Start to run session in different communities of the Liege's area (Wallonia, Belgium). In all sites, data were collected before, during, at the end and 12 weeks after the session. They provided information on the context as well as on the process (coaches and participants behaviors and perceptions), and participants' achievement and maintenance. In this paper, we will focus our analysis on the interactive decisions of the coaches. It will be based on the observation of three lessons in each site (2d, 5th and 8th weeks): one of the authors attended to the training session as participant observer. Moreover, we will also use data collected through interviews (description of the organization and content of the program) and questionnaires (feelings about the lessons). Participants were also requested to provide their perceptions about the lessons. As evidenced above, the validity of the analysis is guaranteed by the triangulation of the data. Results The three coaches described a similar teaching model but only subject #2 pointed out technical drills. Only subject #3 respected the "official" program developed by the athletics federation. The two other adapted it according to their experience and purposes of their groups. All of them considered that they were providing enough feedback and were active. On the other hand, they thought themselves as needing to encourage more and to be more effective in group management. Globally, participants confirmed the opinions of their respective coaches but they seemed more critical in group #3, showing a lower satisfaction about the motivational behaviors and feedback. The observation pointed out some problems in the clarity of the explanations (subject #1) and some divergences were reported with the actors. Discussion The triangulation of the data allows us to consider that the three coaches are doing a very good job and adapt themselves to the expectations and needs of the participants. The identification of the positive and negative aspects in each subject provides a basis to propose some recommendations. Moreover, we pointed out that encouraged to speak about their own teaching process, all coaches modified spontaneously their interactive decisions during the study. This underlines the interest of this systematic analysis in leisure physical activity as well as in other educational contexts.

DOES PERCEIVED SPORT COMPETENCE INFLUENCE PHYSICAL ACTIVITY ENJOYMENT?

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Introduction In the sport and physical activity (PA) field, enjoyment is a positive affective response to the sport experience (Scanlan & Simons, 1992) and it can also be considered an important factor in promoting active lifestyles and regular PA among school-aged children (Carraro et al., 2008). The aim of the present study was to investigate the effects of perceived sport competence on PA enjoyment. Methods Partecipants were 394 pupils (173 boys and 221 girls) aged between 12 and 13 years (M=12.2). The Physical Self-Description Questionnaire-Short (PSDQ-S; Marsh et al., 1994) and the Physical Activity Enjoyment Scale (PACES; Carraro et al., 2008) were completed. Pearson's correlation test was used to measure the association between variables. Multiple linear regression analysis was conducted to investigate the correlation between PSDQ-S scores (independent variables) and PACES total score (dependent variable). Results Pearson's correlation test revealed the following positive associations between PSDQ-S variables and PACES total score: endurance ($r = .527$, $p < .001$); flexibility ($r = .206$, $p < .001$); strength ($r = .365$, $p < .001$); coordination ($r = .427$, $p < .001$); sport skill ($r = .546$, $p < .001$). Multiple linear regression analysis showed the following score indices: $SE = 7.76$; $t = 20.79$; $R2 = .363$; $F(5, 388) = 44.13$; $p < .001$. Discussion Our results highlighted positive associations between physical self-concept scales and PA enjoyment, and our hypothesis that perceived sport competence can be considered a good predictor of PA enjoyment was confirmed. The results could contribute to our understanding of the processes involved in the promotion of active lifestyles and regular PA among young people. References Carraro A, Young M, Robazza C (2008). Social Behavior and Personality, 36, 911-918. Marsh H (1996). Journal of Sport & Exercise Psychology, 18, 111-131. Scanlan T, Simons J (1992). Champaign IL: Human Kinetics. Scarpa S, Gobbi E, Paggiaro A, Carraro A (2010). Giornale Italiano di Psicologia dello Sport, 8, 25-31.