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The Youth Olympic Games and a new awakening for sports and exercise medicine

Kathrin Steffen^{1,2} & Lars Engebretsen^{1,2}

¹Oslo Sports Trauma Research Center, Department of Sports Medicine, Norwegian School of Sports Sciences, Oslo, Norway

²Medical & Scientific Department, International Olympic Committee, Lausanne, Switzerland

Corresponding author:

Kathrin Steffen, Oslo Sports Trauma Research Center, Department of Sports Medicine, Norwegian School of Sport Sciences, Oslo, Norway

Email: kathrin.steffen@nih.no

“When can I return to sport?” and “How can I get active, fit, and healthy faster?” Questions like these from the top athlete or from a passionate recreational individual require the clinician to go beyond the diagnosis and to a functional capacity assessment in order to fully understand how the diagnosis impacts the patient’s well being. Is our reductionist thinking preventing us from using sports *and* exercise medicine in preventing and managing diseases? Is a “sports *and* exercise medicine specialty” part of the answer to these concerns? Read Gordon Matheson and co-worker’s viewpoint on this issue.¹ If the authors have a point, the new specialty “Sports and Exercise Medicine” as introduced in countries like Great Britain, Australia, and New Zealand have their work cut out for them. The IJHP September issue is filled with good reasons for a concerted approach to use sports medicine and exercise as a tool to improve the individual’s health, and we will need a coordinated approach to succeed! The Youth Olympic Games, with its cultural and educational emphasis, is one of the IOC’s approaches to showcase high-level sports as a catalyst for improving the health of the youth.

In August 2010, the first Youth Olympic Games (YOG) for elite summer sport athletes were held in Singapore. The nature of the Games venues provided challenges to the organization of medical coverage for the 14- to 18-year old participants and their staff. The paper of Chia and co-workers² describes the planning and delivery of medical services during the Singapore-YOG. Their experiences clearly will help the organizing committee in Innsbruck, when the next generation of future Olympic winter sports athletes will be gathered during the Youth Olympic Winter Games in Austria, in January 2012. This issue of the *British Journal of Sports Medicine - Injury Prevention and Health Protection* is dedicated to these young athletes.

A recent review of the literature on injury risk among young elite athletes preparing themselves for sports in the Summer Youth Olympic Games showed that, apart from football, little knowledge was available.³ In winter sports, even fewer data on injury risk are published on this age group. The Sport Injury Prevention Research Centre at the University of Calgary represents a positive initiative. Having the strong tradition of ice hockey in Canada and access to thousands of Junior hockey players, they have focussed on the young players' health for many years. Some of their recent research have shown that the risk for concussion injuries is three times higher for players playing in a league in which body checking is permitted compared with playing in a league in which body checking is not permitted.⁴ These findings have led to much debate in North America, and there are on-going evaluations of the body-checking rules for young athletes. Enjoy the latest study from the Calgary-group on young elite ice hockey players, and their injury risk associated with team performance and penalty minutes.⁵ Systematic injury surveillance on young elite athletes, as it will be initiated in Innsbruck, will allow monitoring injury trends over time to identify high risk sports and ensure new knowledge on injury trends to form the basis for further research on injury risk factors, mechanisms, and in the final step, on injury prevention initiatives.

We still remember the Olympics in Vancouver well. Fantastic Games! Attractive TV pictures broadcasted all over the world. Happy athletes, spectacular competitions, fascinating speed elements, but also disappointments when the personal goal or medal was not reached. Among the negative events were many injuries, which are still too many for our liking!⁶

Three studies from the Oslo Sports Trauma Research Center directly address some of the identified high-risk sports. Findings from injury videos and interviews from the Vancouver Olympics and various World Cup competitions describe and analyze the complexity of events leading up to ACL injuries among World Class alpine skiers⁷ as well as injury incidences and mechanisms among snowboard and ski cross athletes.^{8,9} Their findings will enable the athletes to prepare better, so that technical and inappropriate tactical choices through the runs get reduced.

You may have followed the FIS discussions on equipment changes, such as longer skis, in alpine skiing. One other hot topic in injury prevention, and not only in skiing safety, is the helmet. McIntosh and his consensus group on "sports helmet safety" strongly advocate the development of appropriate helmet standards, which address the need for improved helmets in high-level competition compared to helmets for recreational athletes.¹⁰

And finally: IMPLEMENTATION. Though many well-designed intervention studies have been published in the peer-reviewed sports medicine literature, showing that injury risk can be reduced, Caroline Finch in her latest paper, is asking herself, why do sports injuries still happen?

Read the editors' choice!¹¹ There, Finch has at least three possible answers to this question: there might be 1) a dissemination failure where the results (the effective intervention) have not reached the target audience, 2) a translation/adoption failure where the relevant information has reached the key persons (e.g. coaches and players), but is not understood by them, and 3) a research relevance failure where the research findings are not directly relevant to the real-world scenario!

Good luck in Innsbruck!

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