

# Under-researched populations and topics in sport and exercise medicine (SEM)

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In this South African Sports Medicine Association (SASMA) edition of *BJSM*, we spotlight work on under-researched populations and topics in sport and exercise medicine (SEM). These populations include youth sport, para athletes, women's sport, and trans and gender non-conforming (TGNC) athletes. The topics include lesser-understood concussion risk factors such as personal protective equipment, COVID-19 and how para football players perceive concussion. We also include topics on the internal consistency of mental health tools in youth sport, and the challenges of working in SEM—from undergraduate medical training, forecasts to reduce heat-illness and working as a clinician in women's rugby.

## SASMA UPDATE

The International Festival of Sports, Exercise and Medicine Conference 2022, co-hosted by SASMA, was a great success, with over 450 delegates in attendance. Congratulations to Professor Christa van Rensburg (@ChristaJVR) and the organising committee. The next conference is planned for October 2024, and our international experts are already lined up, so watch this space! Our journal, the *South African Journal of Sports Medicine* (@SAsportmed) is on Scopus and PubMed. This is a huge step for the journal and SASMA, and we congratulate Professor Mike Lambert (@MikeLambert01) and team for their

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hard work on taking the journal to new heights.



## CONCUSSION, PERSONAL PROTECTIVE EQUIPMENT, COVID-19 AND PARA FOOTBALL

Personal protective equipment to reduce concussion risk is not well understood, particularly the evidence for mouthguard usage and concussion risk. Studies also suggest that helmet characteristics (for example, age) can influence concussion risk in youth ice hockey.<sup>1</sup> In view of these points, Dr Kolstad and colleagues from the University of Calgary aimed to compare the incidence rates and odds of concussion between youth ice hockey players based on mouthguard use and helmet age (*see page 571*). We have linked an editorial to this article to remind us that concussion risk is complex and present the socioecological argument for the collective approach to effectively reduce the risk of concussion in the rugby union tackle (*see page 562*).

Another potential risk factor for concussion in youth athletes is COVID-19 infection. In a prospective cohort study conducted over 1 academic year, Dr Bullock and colleagues show how young athletes with a COVID-19 infection have higher concussion rates within 60 days

following recovery from the infection compared with athletes without an infection (*see page 590*).

In the first Concussion in para sport position statement, the Concussion in Para Sport Group highlight the paucity of concussion-related research in para sport and the urgent need for work in this area to develop a better understanding of the intricacies of concussion in this population.<sup>2</sup> This is a landmark paper and precedes the upcoming Amsterdam Concussion Consensus Statement to be published in *BJSM* in June. In line with this call and to improve clinical care, Dr Weiler and colleagues from Vrije Universiteit Amsterdam use a qualitative approach to explore current and retired male English blind 5-a-side footballers' perceptions of concussion, concussion risks and concussion prevention in para football (*see page 578*). The main findings of the study are also translated into an infographic for dissemination (*see page 611*).

## WOMEN SPORT

Dr Bruder and colleagues from La Trobe University conducted the first systematic review aimed at investigating self-reported sex/gender differences on activity and knee-related outcomes after ACL injury (*see page 602*). The authors found 236 studies that met their eligibility criteria, and found a sex/gender outcome inequality after ACL injury, with females/women/girls experiencing inferior activity and knee-related outcomes compared to males/men/boys. Based on their systematic review findings, the authors go on to answer the question of why female athletes/women/girls experience inferior outcomes after ACL injury. In an editorial, Dr Paul visits World Rugby's strategic plan for women's rugby and describes the unique challenges and opportunities in the South African context (*see page 557*).

## YOUTH SPORT, TGNC ATHLETES AND MENTAL HEALTH

Access to athlete mental health care, like physical care, can be considered a resource that allows athletes to function, cope with stress, perform and achieve their goals. In 2019, the IOC established the Mental Health Working Group to develop an assessment battery for the early identification of mental health symptoms and disorders in elite athletes.<sup>3</sup> The internal consistency of the mental health assessment battery has been tested in elite athletes, but can the same internal consistency be shown for student athletes? Dr Taylor and colleagues set out to answer

this question in a sample of 993 student athletes from four universities (*see page 595*). Athletes who are transgender are at increased risk of adverse mental health outcomes due to stigma and discrimination. In line with this concern, Dr Kroshus and colleagues provide detailed institutional/athletic strategies that may support TGNC collegiate student-athletes well-being in a consensus statement based on the National Collegiate Athletic Association Summit on Gender Identity and Student-Athlete Participation (*see page 564*).

### WORKING IN SEM

In an editorial, Dr Greenslade and colleagues question whether undergraduate medical training is adequate to promote a healthy active lifestyle to reduce the burden of non-communicable disease and offer solutions to this challenge (*see page 558*). Dr Paul and colleagues from the University of Cape Town also share how the history of women's rugby in South Africa impacts the clinician and practitioner working in the sport (*see page 557*).

All athletes, whether amateur or professional, who train and compete outdoors in the heat are at risk of heat illness. To prepare the athlete and reduce their risk of heat illness, forecasting of the weather is required which typically a reading of the air temperature. In an editorial, Dr Klöwer and colleagues discuss the potential of forecasting the feels-like temperature, which may be more pertinent to athletes, coaches, physicians and organisers in preparation for training and competition (*see page 559*).

Whatever the weather, South Africa and SASMA welcome you and we hope to see you @SASMA in 2024!

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