

consensus statements are much more diverse globally than those that author them. Consideration of how the statements are used in practice and outside of the academic literature needs to be explored.

383

### MAXIMISING THE RELEVANCE AND DISSEMINATION OF THE IOC MEDICAL CONSENSUS STATEMENTS: A KNOWLEDGE MANAGEMENT PERSPECTIVE

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**Background** There have been 27 consensus statements published under the International Olympic Committee (IOC) Medical and Scientific Commission with a goal of contributing to the mission of injury prevention and protection of athlete health. The success of these statements in achieving this goal has not been evaluated. Knowledge management (KM) considers the identification, acquisition, creation and storage, transfer and application knowledge. The KM process of transforming knowledge into relevant and shareable information is important to consider, to ensure the statements are adaptable and useable to local contexts in sports medicine.

**Objective** This study uses a KM-framework to evaluate the IOC consensus statements and identify where improvements for their development and dissemination can be made.

**Design** Mixed methods. .

**Methods** Bibliometric analysis, literature review and qualitative case study, including interviews with fourteen South African and Australian sports physicians/physiotherapists. A proposed new KM framework is presented with practical examples of current and proposed steps for improving the development, dissemination and use of the IOC consensus statements.

**Results** The framework shows how knowledge (both tacit and explicit) is currently brought together in a consensus statement. This process is led by international scientific/clinical experts, but there is scope to include athletes and/or coaches. Subsequently, the steps of gathering knowledge and tailoring it into relevant and shareable information are outlined. Examples for improvement include consistent formatting and key word choices in the written statements, the inclusion of athlete/coach take home summaries and a wider range of dissemination formats to accommodate different access preferences. Stronger awareness of who the audience is and what the consensus statements seek to do are also highlighted.

**Conclusions** A KM-framework is highly applicable for the development and dissemination of the Consensus Statements. Short, simple changes as well as longer-term, more resource intensive opportunities, could help to increase visibility and applicability in practice.

384

### MAXIMISING THE RELEVANCE AND DISSEMINATION OF THE IOC MEDICAL CONSENSUS STATEMENTS: WHICH CONSENSUS STATEMENTS ARE USED IN PRACTICE, AND HOW ARE THEY USED?

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**Background** One of the goals of the International Olympic Committee (IOC) Medical and Scientific Commission is to provide guidance in relation to injury prevention and the protection of athlete health. One way of meeting this goal is the development and dissemination of sports medicine consensus statements. It is not known if, or how, these consensus statements are used by staff within the National Olympic medical commissions.

**Objective** This study aimed to identify which of the IOC medical consensus statements were most widely known and used by a selection of Olympic sports medicine professionals in South Africa and Australia, and how they were accessed, regarded and used.

**Design** Qualitative case study.

**Methods** Semi-structured interviews, document analysis and field notes were utilised. Fourteen (n=14) sports medicine professionals directly involved with Olympic athlete health were interviewed in South Africa and Australia.

**Results** The statements most commonly recalled by participants (without prompting) addressed the topics of Periodic Health Evaluation, Relative Energy Deficiency, Concussion and Load. These documents were noted as having practical information such as a decision flow chart that was easily applicable for athlete management. A further reason for use was relevance outside of the Olympic setting (e.g. sourced in preparing a policy for medical care of a sports team). The consensus statements were most commonly accessed through social media and used by sharing with peers, with or without a tailored summary, cited in publications and talks, or re-read when seeking a quick update on a particular topic.

**Conclusions** Of 27 consensus statements available, most were not widely known or used by these participants. The documents that were most familiar were perceived as being relevant and practical. In this case, the documents were shared with colleagues by email/social media but not formally adopted or integrated into athlete care.

385

### SELF-REPORTED PREVENTIVE STRATEGIES IN OVERHEAD ATHLETES

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**Background** Overhead athletes often perform shoulder movements with high velocity and extreme range of motion, thus

making them higher risk of shoulder injury. Preventive strategies are frequently used to decrease injuries. However, prior to implementing a preventive program could be effective identify the athletes' beliefs and opinions about injury prevention to increase the engagement.

**Objective** To describe the perceptions on preventive strategies among overhead recreational athletes.

**Design** Cross sectional study.

**Setting** An online semi-structured survey on a group of recreational overhead athletes.

**Participants** Fifty-one recreational overhead athletes (male=34; female=17; 31.16±10.82 years; mean sport experience=14.3-years) took part in the online survey. Of those participants, 13 were from basketball (25.5%), 11 from handball (21.6%), 16 from tennis (31.4%), and 11 from volleyball (21.6%).

**Assessment of Risk Factors** An online semi-structured survey was applied, with the following categories: (1) history of injuries, (2) self-reported preventive strategies. Descriptive statistics and qualitative research methods were used to perform a thematic analysis.

**Main Outcome Measurements** Self-reported injury prevalence; beliefs on preventive strategies; Categories resulting from the thematic analysis, with (1) self-reported preventive strategies, (2) professional support to preventive strategies.

**Results** Overall, 42 athletes (82.4%) had experienced a sport-injury in the past. For 48 athletes (94.1%) is possible to prevent injuries and the self-reported preventive strategies were: 'muscle strengthening' (n=19), 'muscle stretching' (n=10), 'neuromuscular preventive exercises' (n=7), 'warm-up exercises' (n=6), 'adjustment of movements' (n=5), 'higher cardiovascular resistance' (n=5), 'use of protective equipment' (n=3), 'nutrition management' (n=2), and 'rest' (n=2). Besides, forty athletes self-reported the physiotherapist like the professional to support preventive strategies (n=40), followed by physical educator (n=19), personal trainer (n=16), and coach (n=4).

**Conclusions** In conclusion, the self-report preventive strategies from overhead athletes are in partial agreement with scientific evidence. This study identified athlete beliefs that could be incorporate in future preventive programs.

386

#### THERE WAS A HIGH INCIDENCE OF MATCH INJURIES AT THE 2019 INTERNATIONAL NETBALL WORLD CUP COMPETITION, MOSTLY IN THE LOWER LIMB AND FOLLOWING CONTACT WITH OTHER PLAYERS

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**Background** Netball is a fast action game and there is growing interest in the sport. The Netball World Cup (NWC) is an international netball world championship, contested every four

years, with 16 teams qualifying by ranking and play-offs. Research on netball injuries is however limited.

**Objective** To determine the incidence and severity of injuries during the 2019 NWC.

**Design** Prospective study, cross sectional analysis.

**Setting** Netball World Cup 2019 in Liverpool, England.

**Patients (or Participants)** 192 elite female netball players from all 16 contesting teams at the NWC (average squad size 12 players).

**Interventions (or Assessment of Risk Factors)** Medical staff of each team recorded all injuries (all- and match injuries; 840 total exposure hours) and training/match days lost during the 10-day tournament.

**Main Outcome Measurements** Incidence rate (IR) (per 1000 player-hours; 95% CI) and severity (% time-loss  $\geq$ 1 day) of all injuries and match injuries.

**Results** 48 independent injuries were recorded (46 during match-play, 2 during training) in 192 players (25%). The IR of match injuries was 54.8 (38.9–70.6). The IR in the lower limb (28.6; 17.1–40.0) was significantly higher ( $p=0.016$ ) vs. the head (9.5; 2.9–16.1;  $p=0.016$ ) and upper limb (8.3; 2.2–14.5;  $p=0.002$ ). In the lower limb, the IR of ankle injuries was significantly higher than knee injuries ( $p=0.033$ ). Most injuries (71%) occurred in contact situations with another athlete with 34% occurring during quarter 3 of the game, followed by quarter 1 and 2 (26% each). 28% of all injuries were time-loss injuries. The % injuries, by player position, were: centre (25%), goal keeper (21%) and goal defence (19%).

**Conclusions** There was a high incidence of injuries in elite netball players, with 1 in 4 players sustaining an injury. There is an urgent need to introduce targeted injury prevention strategies in netball internationally to reduce the risk of injuries during the NWC.

387

#### MORE THAN 80% OF ILLNESSES AT THE 2019 INTERNATIONAL NETBALL WORLD CUP COMPETITION ARE ONLY REPORTED ON MATCH DAY: IS THERE NOT A NEED TO EDUCATE PLAYERS?

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**Background** The international Netball World Cup (NWC) is contested every four years and 16 teams qualify to participate, based on their world ranking. The risk, nature and severity of illness at the NWC is not known.

**Objective** To determine the incidence, severity and reporting of illness by players during the NWC in 2019.

**Design** Prospective study, cross sectional analysis.

**Setting** Netball World Cup 2019, Liverpool, England.