

Interventions (or Assessment of Risk Factors) The Oslo Sports Trauma Research Centre Overuse Injury Questionnaire was used weekly to register OKIs and OAIs over 16 weeks.

Main Outcome Measurements Self-reported OKIs (e.g., patellar tendinopathy, patellofemoral syndrome) and OAIs (e.g., Achilles tendinopathy) and symptom duration.

Results Female teams participated in 52 basketball sessions (range 42–61, SD 8.6, 42% games) and males in 53 sessions (range 51–54, SD 1.2, 42% games). In the season, 30.4% of females and 27.8% of males reported an OKI and 19.1% of females and 8.3% of males an OAI. The median symptom duration (burden) of OKIs was 7 weeks for females and 4 weeks for males. Median time to onset for new OKI cases was 4 weeks for female players and 7 weeks for male players. The median symptom duration of OAIs was 9 weeks for females and 2 weeks for males. Median time to onset for new OAI cases was 3 weeks for females and 7 weeks for males.

Conclusions The seasonal prevalence and symptom duration of OKIs and OAIs is higher in female youth basketball players compared to males. OKIs represent a greater proportion of lower extremity overuse injury in males compared to OAIs. Females reported new OKIs and OAIs earlier in the season compared to males.

320

SPORT-RELATED CONCUSSION AWARENESS AND KNOWLEDGE AMONG WORLDWIDE SPORTS PHYSICAL THERAPISTS

^{1,2,3}Wesam Saleh A Al Attar, ¹Amir A El Fiky, ⁴Mashaer Alyami, ¹Ehdaa H Khaledi, ¹Ahmed Qasem, ¹Fahad M Alkabbabi, ¹Nasser G Alshamrani, ¹Raed S Almalki, ¹Amirah M Akkam, ³Ross H Sanders. ¹Department of Physical Therapy, Faculty of Applied Medical Science, Umm Al Qura University, Makkah, Saudi Arabia; ²Department of Sport, Exercise and Health, Faculty of Medicine, University of Basel, Basel, Switzerland; ³Discipline of Exercise and Sport Science, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia; ⁴King Fahad Specialist Hospital, Dammam, Saudi Arabia

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Background Sport-related concussions (SRC) have gained more attention in the recent years due to its detrimental short-term and long-term effects on the players.

Objective To assess the awareness and knowledge of SRC among sports physical therapists.

Design A cross-sectional study.

Setting An online survey.

Patients (or Participants) A total of 517 sports physical therapists completed the survey.

Interventions (or Assessment of Risk Factors) The survey consisted of multiple-choice questions related to the knowledge of physical therapy in managing SRC patients, case identification, and preventive measures was distributed to sports physical therapists. The questions of the survey were developed using instructions published by the University of Michigan School of Kinesiology Concussion Center (Ann Arbor, MI, USA).

Main Outcome Measurements SRC awareness levels and knowledge among sports physical therapists.

Results The survey scores ranged from 40% to 100%, with an average score of 62.7%. The highest educational qualification (46%) recorded among the respondents was a master's degree. There was a difference in the score based on participant qualifications (Welch's $F(2, 308.3) = 15.3, p < 0.001$). Pairwise comparisons revealed that participants with a doctoral/fellowship degree (62.1 ± 18.5) or a masters'

degree (62.7 ± 18.5) obtained greater scores than participants holding a bachelors' degree (56.7 ± 13.8) ($p > 0.001$). Additionally, there was no difference in the score between participants with a doctoral/fellowship degree or a masters' degrees ($p = 0.073$). Furthermore, there was no difference in the survey score based on participants' region (Welch's $F(4, 143.3) = 0.08, p = 0.988$).

Conclusions The results suggested that a great number of sports physical therapists around the world are aware of current standards and guidelines regarding SRC assessment and management. However, the greatest difference was attributed to higher educational qualification, which denotes its significance recognizing and managing SRC.

321

ABSTRACT WITHDRAWN

322

THE RELATIONSHIP BETWEEN CERVICAL PROPRIOCEPTION AND CONCUSSION IN MALE PROFESSIONAL RUGBY PLAYERS

^{1,2}Theo Farley, ¹Kath Bester, ¹Alan Barbero, ¹Ed Barry, ¹Jack Thoroughgood, ¹Richard Sylvester, ¹Akbar De Medici, ¹Mathew Wilson. ¹The Institute of Sport Exercise and Health, London, UK; ²The English Institute of Sports, London, UK

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Background During a tackle 1997 Newtons of force (equivalent to 204kg) is known to be transmitted to an opponent, however there is currently no known minimal force threshold leading to concussion. Amongst the other factors considered, contact technique has been identified as a potential injury cause, with head position proposed as a key variable.

Objective To investigate whether cervical proprioception is significantly associated with concussion incidence in a group of male professional rugby players.

Design Prospective cohort study.

Setting 165 professional rugby players across 12 Rugby Union teams and three professional leagues were assessed, during the 2018–2019 season.

Interventions Athletes were assessed for cervical proprioception at three time points throughout the season using the Joint Position Error Test.

Main Outcome Measurements Associations with diagnosed concussion injuries are presented as Incidence Rate Ratios (IRR) with 95% confidence intervals. we present the IRR for a 10% increase in each variable and compared results against concussion using match minutes to allow for risk exposure.

Results During the study period, 45 concussions were incurred by 44 players giving a rate of 19.7 concussions per 1000 player-match hours. There was a significant association between right rotation repositioning error and concussion with a 5% increase in concussion risk for each 10% increase in gross right rotation error ($P=0.021$) and a 6% increase in concussion risk for each 10% increase in right rotation along the horizontal plane ($P=0.0001$).

Conclusions Using the JPET for cervical proprioception it is possible to highlight rugby players who are at greater risk of concussion. The JPET is a fast and cheap test to set up and does not require specialist equipment.