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NARROWING THE GENDER GAP IN RUGBY INJURY EPIDEMIOLOGY: A NOVEL VIDEO-ANALYSIS STUDY IN THE WOMEN'S GAME

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Background Rugby Union has one of the highest risks of injury and concussion in team sports globally. Despite growing participation, little data exists surrounding injury rates and mechanisms in women's rugby.

Objective To identify suspected injury and concussion events in women's varsity rugby union

Design Video-analysis study using validated suspected injury definition criteria.

Setting University women's rugby

Patients (or Participants) Women's 'Canada West' varsity rugby athletes (2017–2019 seasons)

Interventions (or Assessment of Risk Factors) Video-analysis of game events leading to suspected injury and concussion

Main Outcome Measurements Suspected injury and concussion based on content validation and consensus by nine rugby-specific researchers, therapists, and sport medicine physicians

Results There were 225 suspected injuries recorded in 48 games (Injury rate (IR)= 115.1/1000 hours [95% CI;100.5–131.2] or 4.7 injuries per match). The on-field medical attention IR was 93.1/1000 hours (95% CI;80.1–107.6: 3.8 per game). Suspected concussions accounted for 26% of injuries (30.2/1000 hours: 95% CI;23.0–38.9: 1.2 per game). The attacking team sustained 64.0% of injuries. Removal from play was observed for 28.9% off suspected injuries. The most common injury locations were head/neck (28.4%) and lower extremity (27.6%). The tackle accounted for 67.1% of all injuries, with a propensity of 11.2/1000 tackle events (95% CI;9.5–13.2) or 3.1 tackle-related injuries/game. Of tackle-related injuries, 63.6% were to the ball carrier, while 52.2% of tackle-related concussions were to the ball carrier.

Conclusions This study adds to the growing body of literature examining women's rugby union. The rate of suspected injury is high compared with other rugby injury studies. It is acknowledged that suspected injuries and not supported by

prospective injury surveillance. The high proportion of tackle-related suspected injuries warrants further investigation into specific characteristics which may be associated with injury onset, and in particular concussion.

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PERCEPTIONS ON INJURY AND PREVENTION STRATEGIES AMONG RECREATIONAL RUNNERS

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Background Running is one of the most popular physical activities around the world. Despite the benefits of running, a high prevalence of injury has been reported in runners and efforts are conducted to minimize this risk. Prevention strategies could be more effective with a better knowledge about runners' beliefs and opinions about injury prevention.

Objective To describe the perceptions on injury and prevention strategies in recreational runners.

Design Cross sectional study.

Setting An online semi-structured survey on a group of recreational runners.

Participants Seventeen recreational runners (male=11; female=6; 34.06±8.56years; mean running experience=8.7-years) took part in the online survey.

Assessment of Risk Factors An online semi-structured survey was applied, with the following categories: (1) perception on injury, (2) history of injuries, and (3) self-reported prevention strategies. Descriptive statistics and qualitative research methods were used to perform a thematic analysis.

Main Outcome Measurements Self-reported injury prevalence; and categories resulting from the thematic analysis, with (1) perceptions on injury and (2) self-reported prevention strategies.

Results From 17 recreational runners, 12 (70.1%) had experienced a running-reported injury. The perceptions on injury were 'alteration on body that results in pain and incapacity to complete physical activities' (n=7), 'damage on muscle, ligament, tendon, or bone' (n=4), 'body damage due to over-use' (n=2), 'inflammation' (n=2). For the most of them (n=16; 94.1%) is possible to prevent injuries and the self-reported prevention strategies were: 'muscle strengthening' (n=10), 'muscle stretching' (n=4), 'preventive exercises instructed by physiotherapist or coach' (n=4), 'neuromuscular and educative exercises' (n=3), 'load management' (n=2), 'mobility exercises' (n=2), 'respect body limits' (n=2) and 'rest' (n=1).

Conclusions In conclusion, the recreational runners of this sample present some misguided perceptions on injury, besides the most of them believe that prevention strategies are important. To increase effectiveness and engagement, prevention programs could be incorporate the runners' beliefs and attitudes.