

Main Outcome Measurements Factors being neglected in sports research will be discussed in this study, for example, safety justice is relating to players' risk-taking behaviours during match or training; whether opponents are 'co-workers' and players' safety attitudes towards co-workers can influence players' aggressiveness which relates to injuries and accidents.

Results The framework identified for evaluating OSH awareness will be presented from two dimensions including five themes: rugby management commitment (management safety priority, management safety empowerment and management safety justice) and rugby player involvement (players' safety priority and players' trust in co-workers' safety competence).

Conclusions The findings have theoretical implications for rugby organisations to design a survey to facilitate the development of appropriate behaviour interventions. Furthermore, the framework could be potentially applied in wider sports settings.

247 ABSTRACT WITHDRAWN

248 **U.S. RUGBY-7S PLAYERS INJURY INCIDENCE, SEVERITY AND BURDEN EFFECTS BY POSITIONS AND LEVELS OF PLAY**

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Background There are limited injury data for Rugby-7s, and even less data analysed by participation level or days return-to-sport after injury.

Objective To describe injury incidence, severity, and injury burden for three levels of Rugby-7s competition.

Design Prospective descriptive epidemiology study.

Setting U.S. Rugby-7s tournaments/series and championships (n=57; 2010–2014) over 72 tournament days; L1 elite, L2 sub elite, and L3 under-19/college/senior games (exposure=14,591 player-hours).

Participants 24,538 U.S. players (men=17,770; women=6,768; age 13–54 years).

Assessment of Risk Factors Intrinsic and extrinsic risk in match injuries.

Main measurement outcome Incidence (per/1000 player-hour (ph)) and mechanism of injury were captured using Rugby

Injury Survey & Evaluation (RISE) report methodology. Time-loss injuries, injury severity (days=d) from training/competition (including post tournament) were documented, and injury burden were calculated.

Results Injury incidence (n=491) was not significantly different between levels (L3:30.74/1000ph, CI:27.26–34.54; L2:36.24/1000ph, CI:30.84–42.31; L1:41.78/1000ph, CI:30.8–55.39). Mean injury burden was significantly lower for L3 than L1 and L2 (L3-vs-L2, $P<0.001$; L3 vs L1, $P<0.001$). Greater risk of lower limb injuries was noted in L3-vs-L1 (RR:0.59, CI:0.38–0.95, $P=0.024$). The cohort sustained high head/neck injury rates (22.6%; 13.3/1000ph). Backs had more injuries among levels than forwards (L1 backs 51.8/1000ph, forwards 26.4/1000ph, $P=0.034$; L2 backs 37.7/1000ph, forwards 29.6/1000ph, $P=0.152$; L3, backs 32.76/1000ph, forwards 24.8/1000ph, $P=0.029$; total cohort backs 35.74/1000ph, forwards 26.39/1000ph, RR:1.35; CI:1.12–1.65, $P=0.002$). Average days absent post injury=44.0d (37.8–50.1d) in 68.4% with follow-up data. A significant difference ($P=0.018$) in mean severity days absent from sport was between the L3 (57.1d) and L2 (27.9d) forwards.

Conclusions Competition level and playing position had significant effects on injury burden and nature of injury. The L1 and L2 had higher injury burden than the lower L3. The L1-vs-L3 cohort had a high proportion of head/neck injury risk compared with other injury locations. Backs sustained greater injury incidence rates among all three levels as compared to forwards.

249 **THE EPIDEMIOLOGY OF HEAD, NECK AND FACE INJURIES OF ADULT MEN'S AND WOMEN'S U.S. RUGBY-7S PLAYERS**

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Background Head and neck injuries are a collision sport concern, however there is a lack of Rugby-7s injury data, particularly in emerging Rugby nations.

Objective To determine the head, neck, and face (HNF) match injury rates and characteristics in US Rugby-7s.

Design Prospective descriptive epidemiology study.

Setting USA Rugby-sanctioned tournaments/series and championships (2010–2016).