The Irish Rugby Injury Surveillance Project

School Senior Cup Rugby

2018 - 2020 Summary Season Report

IRFU

UNIVERSITY OF LIMERICK
OLLSCOIL LUIMNIGH

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Irish Rugby Football Union Foreword

The Irish Rugby Football Union (IRFU) are committed to player welfare across all areas of the game in Ireland. Rugby faced unprecedented challenges over the last two years due to the global COVID-19 pandemic, particularly in our schools game. Due to player and staff absences, we understand the difficulties faced by schools returning to normal school and sport activities, and subsequently the limited data obtained during the 2021/22 season. As we look ahead to the upcoming 2022/23 school season, we are confident that the Irish Rugby Injury Surveillance (IRIS) Project will resume data collection across our schools game, to provide us with a comprehensive understanding of injuries in rugby in Ireland.

The IRFU welcome this summary report, highlighting key injury trends unique to our schools game, which allows us to support player welfare, improve performance and ensure continued enjoyment in rugby participation.

The IRFU is dedicated to enhancing player welfare and improving performance across all levels of the game, and results from the IRIS project have led to the development of a nationwide rugby readiness and robustness programme. The IRFU Engage programme was launched in September 2021 to help players prepare for the demands of the game and continue performing to their best.

Together with the University of Limerick, the IRFU are pleased to announce the continued collaboration on the IRIS Project and we look forward to further annual reports from the IRIS Research Team. We are proud to be part of the planned expansion and further development of this world leading long-term project over the next eight years.

Thank you to each and every school, data collector, volunteer, player and researcher that is part of this project. Your continued support is a fundamental component of how we protect player health and wellbeing.

Dr. Rod McLoughlin

Irish Rugby Injury Surveillance Foreword

Comprehensive injury surveillance systems in amateur Rugby Union are needed to enhance player welfare and this innovative project to date has involved the research, design and implementation of an online injury recording platform. The challenges presented by the COVID-19 pandemic and return to sports training and participation were unprecedented and involved a significant effort from the IRFU, Department of Education, and schools to present and maintain a safe environment. The pandemic has impacted the surveillance over the past two seasons. No school competitions ran during the 2020-2021 season and while some surveillance took place during the 2021-2022 season, this was very limited in schools due to the direct effects of COVID-19 on school Rugby staff and player absences.

This report is compiled to give an overview of injury trends in Senior Cup school Rugby across two seasons, 2018-2020 in Ireland. Injury data from 220 matches were analysed, for twelve school teams in the first season and eleven in the second, representing 665 players. Both seasons represent support from dedicated data injury recorders, coaches, doctors, physiotherapists, managers, and ancillary staff within schools: thank you.

The IRIS project includes the addition of amateur men's and women's club Rugby surveillance. The IRIS project involves research stemming from ongoing injury prevention and sports performance work by University of Limerick academics across a range of sports, as well as our specific expertise in Rugby Union. It has effectively brought together academics with expert practitioner experience from the fields of biomechanics, medicine, biomedical engineering, mathematics and statistics, physiotherapy, sport psychology, and strength and conditioning as well as post-doctoral and doctoral researchers. The holistic approach to injury surveillance and prevention is central to the project.

IRIS Principal Investigators
Dr. Tom Comyns, PhD
Prof. Ian Kenny, PhD

Executive Summary

This report is compiled to give an overview of injury trends in Senior Cup school Rugby across two seasons, 2018-2020 in Ireland. Data were grouped to provide a longitudinal trend analysis of injury for Senior Cup School Rugby teams across Ireland.

COVID-19 impacted the surveillance over the past two seasons. No school competitions ran during the 2020-2021 season and while some surveillance took place during the 2021-2022 season, this was limited due to the direct effects of COVID-19 on school Rugby staff and player absences.

1.1 Match Injuries

Twelve teams (339 players) were recruited in season one, while eleven of these teams (326 players) also participated in season two. One team from each season was excluded from analysis due to incomplete match injury reporting, resulting in a compliance rate greater than 90%. Injury data from a total of 220 matches across both seasons were analysed. The matches consisted of friendlies, league games and cup games.

Schools Senior Cup

- The overall match time-loss injury incidence rate for School Senior Cup players was 53.6/1,000 player hours.

- A single Senior Cup player would have to play, on average, 16 matches to sustain one injury.

1.2 Training Injuries

There was a total of 49 training injuries reported in the School Senior Cup across the two seasons.

1.3 Most Frequent Injuries

The shoulder was the most frequently injured body region across the two seasons accounting for 23% of all injuries. Injuries to the shoulder also represented the most severe (average 47 days absence per injury) and burdensome (573 days lost per 1,000h) injury in terms of days absent from play.

The most commonly reported match injury diagnoses for the School Senior Cup were concussions (14%) followed by ankle sprains (13%) and shoulder sprains (10%).

Concussions resulted in an average of 30 days absence from Rugby match or training activities, while ankle sprains resulted in an average of 26 days absence and shoulder sprains resulted in an average of 38 days absence.

Note: Reported concussion incidence includes suspected concussions as per IRFU recognise and remove protocol. The Graduated Return to Play (GRTP) protocol requires a minimum of 23 days absence from play.

1.4 Injury Event

The tackle event accounted for the majority of match injuries across both seasons for the Senior Cup division.

Across both seasons, 64% of all match injuries occurred during the tackle event. The tackler was at a slightly increased risk of injury, with 56% of the tackle related injuries due to tackling as opposed to the ball carrier (44%). The most commonly reported training injuries occurred during contact drills (51%), followed by speed drills (24%).

1.5 Playing Position

Of all match injuries recorded in the Senior Cup across both seasons, 65% were to the forwards (position no. 1-8), while 35% were to the backs (position no. 9-15), which represents a significant positional difference. Second Rows (no. 4 & 5) had the highest proportion of match injuries at 15% followed by the blindside flanker (13%).

1.6 Injury Burden (severity X incidence rate)

The burden of an injury assesses the incidence of an injury in relation to the severity of the injury (measured as the number of days absent).
Shoulder dislocations/subluxations carried the highest cumulative injury burden (280 days lost per 1,000h) and resulted in an average of 68 days absence from Rugby match or training. Concussions and ankle sprains and sprains accounted for 226 and 190 days absence per 1,000h respectively.

2.0 Introduction

2.1 The IRIS Project

The Irish Rugby Injury Surveillance (IRIS) project has developed and implemented the first long-term Rugby specific injury surveillance system within underage and amateur Rugby Union in Ireland. Phase 1 of the project began in 2016 and phase 2 of the project has just commenced in 2022 and will run until 2030, with both phases funded by the IRFU. This system monitors the incidence, type, nature and severity of both match and training injuries occurring across the amateur game in Ireland. By monitoring this information, injury trends have emerged which is aiding in the development and implementation of evidence-based injury prevention strategies in order to minimise injury risk and enhance player welfare.

IRIS Aims:

To develop and implement an injury surveillance system for underage and amateur Rugby Union in Ireland.
To monitor the incidence and type of injuries occurring and identify any possible injury risk factors.
To enhance the health and welfare of Rugby Union players by using this information to assist the IRFU policy regarding injury prevention strategies.

2.2 Injury Definitions

The IRIS project follows the guidelines from the World Rugby 'Consensus statement on injury definitions and data collection procedures for studies of injuries in Rugby Union' [1] and the 'International Olympic Committee (IOC) consensus statement: methods for recording and reporting of epidemiological data on illness and injury in sport 2020 (including STROBE Extension for Sport Injury and Illness Surveillance (STROBE-SIIS))'. [2]

An injury was defined as "Any physical complaint, which was caused by a transfer of energy that exceeded the body's ability to maintain its structural and/or functional integrity that was sustained by a player during a Rugby match or Rugby training, irrespective of the need for medical attention or time-loss from Rugby activities." [1].

A recurrent injury is one of the same site and same type as the original injury and occurs within two months of the player returning to match play following the original injury.

A dual injury is one of multiple diagnoses resulting from one injury event. Dual injuries were analysed as one injury event for the purposes of calculating overall incidence and injury severity. However, when analysing injury location and nature dual injuries were separated as per international best practice. [1,2]

Both time-loss and medical attention injuries have been monitored and analysed separately. Medical attention injuries are any injury that resulted in 0-1 days absent from Rugby match or training activities (i.e. slight injuries). Any injury that results in greater than 1 day absence from match or training activities is classed as a time-loss injury and categorised according to injury severity. Only time-loss injuries were included in injury incidence calculations. [1,2]

Injury severity is calculated as the number of days that elapsed from the date of injury to the date of the player's return to full participation in training and availability for match selection. Injury severity is classified as; slight (0-1 days), minimal (2-3 days), mild (4-7 days), moderate (8-28 days) and severe (>28 days).

Match injury data are presented as the number of injuries per 1,000 player hours of match exposure. In order to calculate match injury incidence rates, the following calculation was used:

Senior Cup Division Team match injury incidence rate (IR): [1]
IR = x 1,000

$$IR = \frac{\text{number of injuries}}{\text{number of matches x number of players (15) x match duration (1.33)}} \times 1{,}000$$

2.3 Recruitment

In the 2018 -2019 season, 12 Senior Cup teams were recruited while in the 2019-2020 season, 11 Senior Cup teams were recruited into IRIS. The IRIS project had over 90% compliance for the School Senior Cup. One Senior Cup school team was excluded from data analysis each season due to poor compliance. Across both seasons 665 Senior Cup players participated in IRIS.

Each school nominated an 'injury recorder', who was trained on use of the IRIS system prior to the commencement of each season. Physiotherapists, school nurses or coaches adopted the role of injury recorder. Each injury recorder was given a secure and confidential login to their own school team's home-page on the IRIS system. Each team registered all players involved with the Senior Cup teams onto the IRIS system. Beginning with the pre-competitive season (each September), the injury recorder documented all injuries occurring to the Senior Cup team players. Injury specific data such as mechanism, nature, body location, occurrence, diagnosis and return to play date was recoded. Injury severity was calculated using the number of days absent from play.

3.0 Match Injuries

3.1 Overall Time-loss Match Injuries

Schools Senior Cup:

Across both seasons (2018-2020), data from 23 Senior Cup teams across 220 matches were collected.

A total of 207 match time-loss injuries (any injury resulting in more than 1 days absence from Rugby match or training activities) were recorded. Any injuries resulting in 0-1 days absence from Rugby match or training activities (slight injuries) were considered to be 'medical attention injuries' and were not included in the analysis of time-loss injuries, as per international best practice. [1-3]

The overall team match time-loss injury incidence rates:

- School Senior Cup – 53.6/1,000 hours.
- This is approximately 1 injury occurring per school game.
- A Senior Cup School player would have to play on average 16 matches to sustain one injury.
- 19% of all Senior Cup injuries resulted in a player being sent to the accident and emergency department for management.
- 9% of Senior Cup injuries were referred to a GP.
- 32% of Senior Cup injuries were referred to a Physiotherapist.
- 7% of Senior Cup injuries required at least 1 day's absence from school.

Table 1 shows the overall team match time-loss injury incidence rate for the School Senior Cup teams.

Table 1: Match time-loss injuries (excluding 'slight' injuries)

Division	No. teams	No. players	No. matches	Exposure hours	No. injuries	IR*
School Senior Cup	23	665	220	3861	207	53.6

*IR – Incidence rate per 1,000 player hours

3.2 Match Injury Classification

The injury diagnosis refers to the specific bodily location alongside the nature of the injury.

The most common injury diagnoses for the School Senior Cup was concussions (14%) followed by ankle sprains (13%) and shoulder sprains (10%). In the School Senior Cup, there were two injuries which had a 'dual' diagnoses; 'concussion with a facial fracture and accounted for an incidence of 0.9 per 1,000 player hours.

Table 2 demonstrates the top three most common specific match time-loss injury diagnoses for the School Senior Cup teams for combined seasons (2018-2020).

Table 2:[1] Overall most common injury diagnoses for the School Senior Cup combined seasons (2018 -2020) (IR/1,000 player hours, %frequency).

Schools Senior Cup Teams (2018-2020)
Concussion 7.5/1,000 player hours (14%)
Ankle Sprain 7.0/1,000 player hours (13%)
Shoulder Sprain 5.2/1,000 player hours (10%)

***Note:** Reported concussion incidence includes suspected concussions as per recognise and remove protocol.*

1 A 'concussion' refers to an injury to the brain, usually caused by a direct or indirect blow to the head.
An 'ankle sprain' refers to a tear of the ligaments located on the outside (anterior-talo-fibular (ATFL) ligament) or the inside (deltoid ligament) of the ankle joint. An ATFL sprain is the most common type of ankle sprain.
A 'shoulder sprain' refers to a tear in one of the ligaments in the shoulder (glenohumeral) joint.

The shoulder, followed by the head were the most commonly injured body locations in the School Senior Cup, accounting for 23% and 17% of all injuries respectively. Shoulder sprains were the most common injury diagnosis for the shoulder while concussions were the most common injury diagnosis for the head.

Table 3 show the most common injury diagnoses for frequently injured body regions.

Table 3: School Senior Cup (2018-2020): Most common injury diagnoses with regards body location. (IR/1,000 player hours, %frequency)

School Senior Cup (2018-2020)	
Location	**Diagnosis**
Shoulder 12.2/1,000 player hours (23%)	GHJ/ACJ Sprain 5.2 Dislocation 4.1 Rotator Cuff Strain 2.3
Head 9.1/1,000 player hours (17%)	Concussions 7.5 Laceration 1.0 Concussion with Laceration 0.3 Concussion with Fracture 0.3
Ankle 7.0/1,000 player hours (14%)	Ankle Ligament Sprain 7.0

2 A 'concussion' refers to an injury to the brain, usually caused by a direct or indirect blow to the head.
A 'laceration' refers to a cut located anywhere on the body.
An 'ACJ sprain' (acromioclavicular joint sprain) refers to a tear of the ligaments that connect the collar bone (clavicle) to the shoulder (GHJ - glenohumeral joint).
A 'rotator cuff strain' refers to a tear of any of the tendons that surround the shoulder joint.
A 'shoulder subluxation/dislocation' refers to either a partial or complete separation of the upper arm bone (humerus) from the shoulder socket (glenoid fossa).
An 'ankle sprain' refers to a tear of the ligaments located on the outside (anterior talo-fibular (ATFL) ligament) or the inside (deltoid ligament) of the ankle joint. An ATFL sprain is the most common type of ankle sprain.

3.3 Timing of Match Injury

Across both seasons (2018-2020), the highest percentage of injuries for the Senior Cup (40%) teams occurred in the 3rd quarter. A small proportion of injuries occurred during match play where the exact timing of injury was unknown (0.9/1,000 player hours).

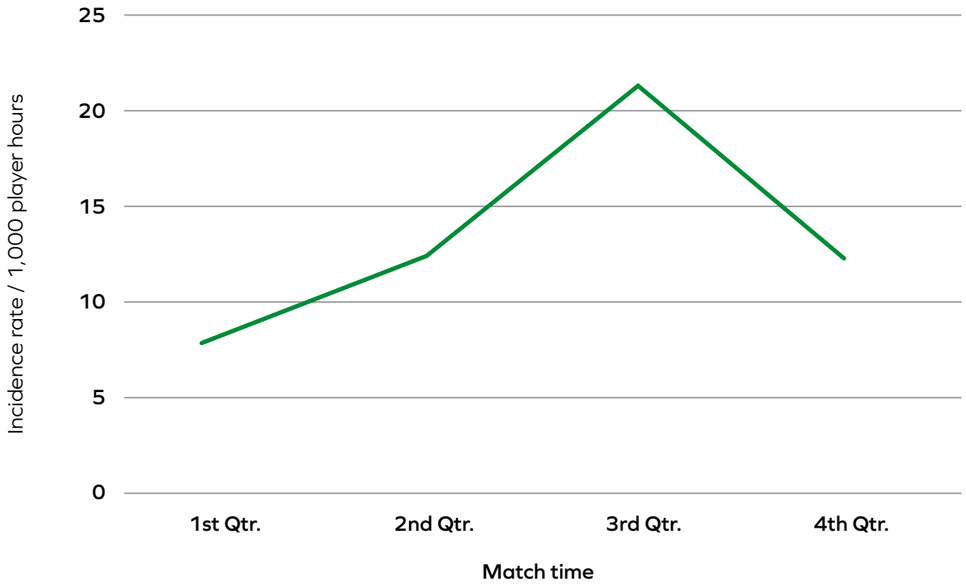

Figure 1: Timing of injury during match play for School Senior Cup teams (IR/1,000 player hours)

3.4 Match Injury Event

Figure 2 shows the event surrounding the occurrence of an injury.

The tackle event accounted for the most common injury event in the School Senior Cup teams across both seasons (2018-2020).

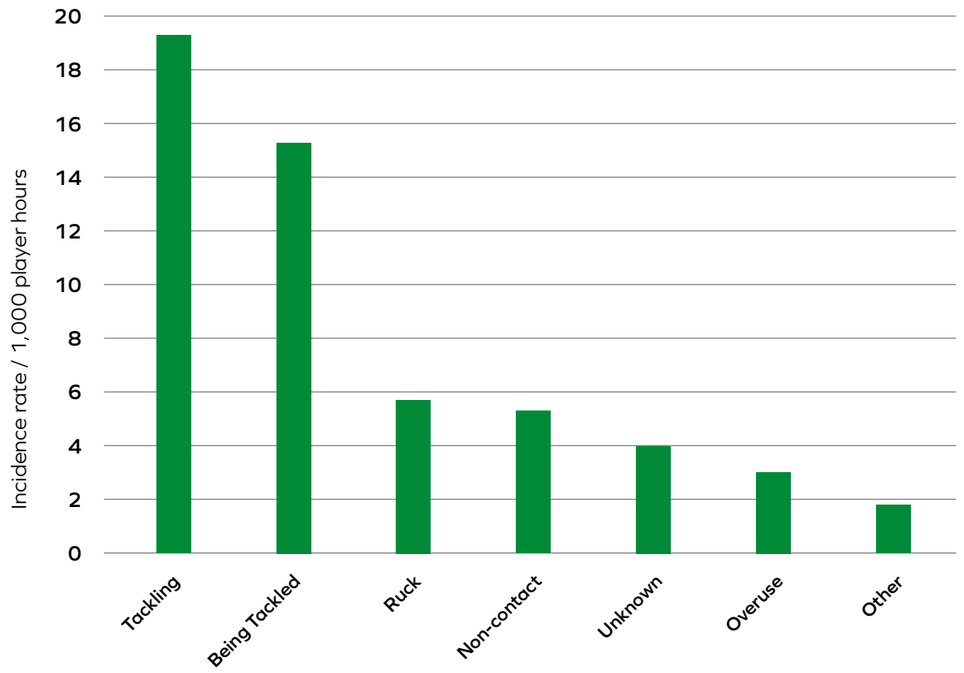

Figure 2: Match Injury event (IR/1,000 player hours)

3.5 Nature of Match Injury

The nature of injury refers to the type of injury occurring.

Across both seasons (2018-2020), ligament sprains followed by concussions were the most common injury type for the School Senior Cup teams. For the Senior Cup, 'other' injuries referred to bursal/meniscus injuries and equated to an incidence rate of 1.3/1,000 player hours.

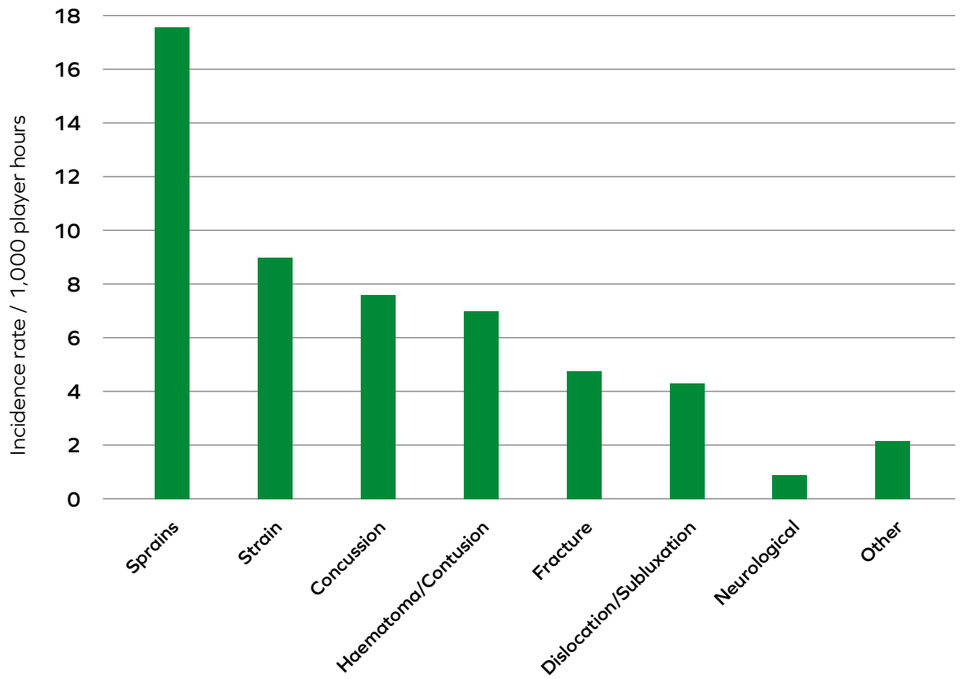

Figure 3: Nature of Match injuries (IR/1,000 player hours)

3.6 Body Location of Match Injury

The shoulder was the most commonly injured body area in the School Senior Cup games across both seasons (2018-2020) accounting for 23% (12.2/1,000 player hours) of all injuries. The shoulder was followed by the head and ankle which accounted for 17% and 14% of injuries respectively.

Figure 4 shows the incidences of injury according to body location for the School Senior Cup teams.

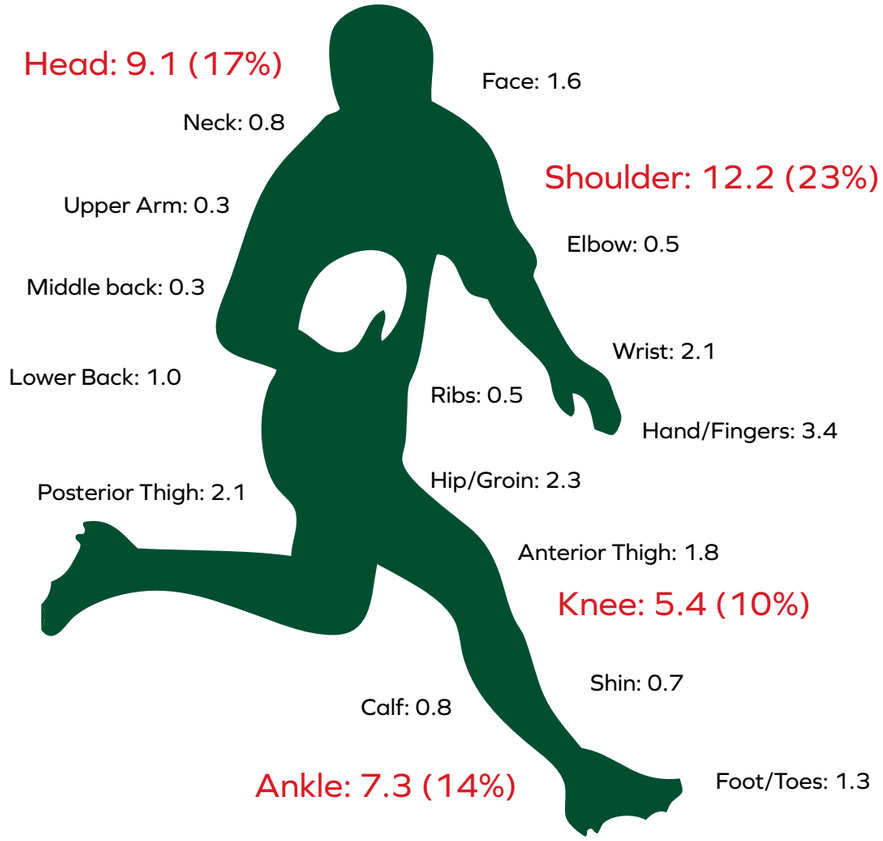

Figure 4: Location of match injury for the School Senior Cup (IR/1,000 player hours)

3.7 Playing Position of Match Injury

Rugby player positions are split into 'forwards' (position no. 1-8) and 'backs' (position no. 9-15). Further in-depth analysis found that when accounting for the difference in playing exposure between forwards and backs, statistically significant ($p<0.05$) differences between the incidence of injuries were reported. Forwards sustained significantly ($p<0.05$) more injuries than backs overall and when analysing injury types between the two groups; forwards sustained significantly ($p<0.05$) more head and shoulder injuries than backs.

The second row (no. 4 & 5) suffered the most injuries in the School Senior Cup matches (15%) followed by the blindside flanker (no. 6) at 13%.

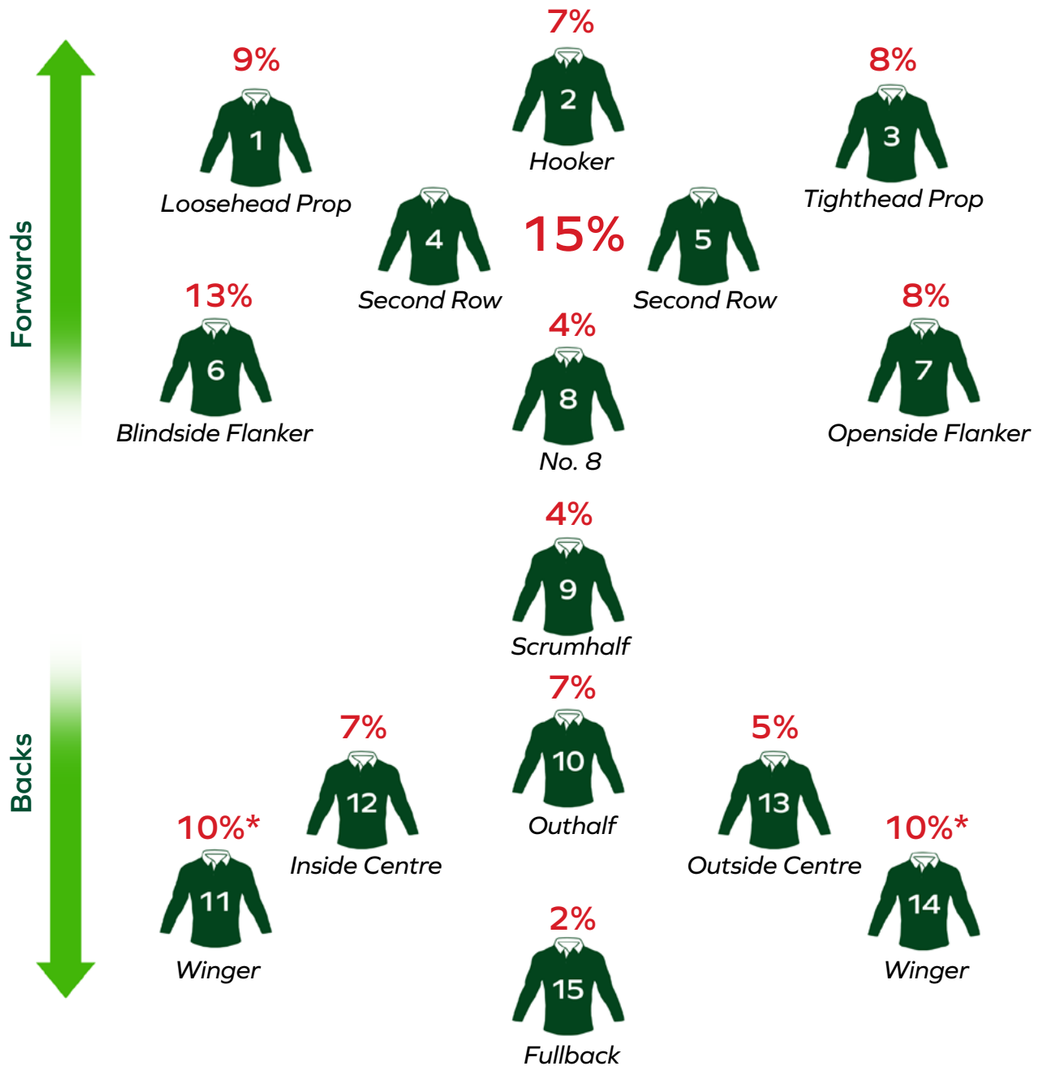

Figure 5:[3] Percentage of injuries occurring per playing position in the School Senior Cup.
*No differentiation between left and right wing.

3 Second Row and Winger positions denote respective combined percentages. Figure 3 is cumulatively 100% without whole number mathematical rounding.

3.8 Match Injury Severity

Injury severity was calculated as total number of days absent from Rugby match or training and classified according to the World Rugby Consensus guidelines.[1] The majority of injuries were moderate or severe (resulting in greater than eight days absence), as shown in Figure 6.

Slight injuries (0-1 days absence) were considered as 'medical attention injuries' and were not included in analysis of time-loss injuries.[1] Slight injuries are discussed in more detail in sub-section 3.10.

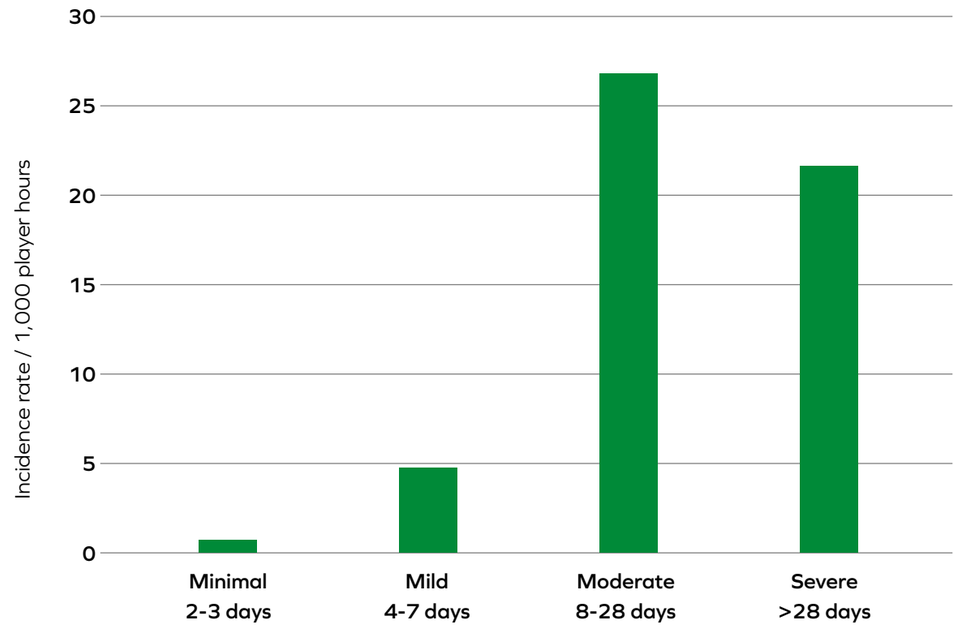

Figure 6: Injury severity of time-loss injuries (IR/1,000 player hours).

3.9 Match Injury Burden (severity X incidence rate).

The burden of an injury assesses the incidence of an injury in relation to the severity of the injury (measured as the number of days absence).

Shoulder dislocations carried the highest injury burden in the School Senior Cup accounting for 16% of all severe match injuries (>28 days absence) and resulted in an average of 68 days absence from Rugby match or training activities.

In the Senior Cup, concussions and shoulder joint sprains also carried a high injury burden accounting for 226 and 197 days absence per 1,000 hours respectively.

Table 5:[4] Injury diagnoses, injury burden (days absence/1,000 player hours), average TDO (total days off).

	Diagnoses	Injury Burden	Average Total Days Off
Senior Cup	Shoulder dislocations/subluxations Concussion Shoulder sprains	280 226 197	68 30 21

3.10 Medical Attention Match Injuries (slight injuries)

Any injuries resulting in 0-1 days absence from Rugby match or training are considered as 'slight' or 'medical attention', injuries and therefore were excluded from the analysis of time-loss injuries, as per international best practice. [1-3]

During the 2018-2020 School seasons, three medical attention (0-1 day time loss) injuries were recorded in the Senior Cup division. The overall incidence rate for medical attention match injuries for School Senior Cup was 1.4/1,000 player hour.

The three medical attention injuries in the Senior Cup division were diagnosed as muscle cramp overuse injuries involving the lower limb. All three injuries occurred during the 4th quarter.

4 A 'shoulder subluxation/dislocation' refers to either a partial or complete separation of the upper arm bone (humerus) from the shoulder socket (glenoid fossa).
A 'concussion' refers to an injury to the brain, usually caused by a direct or indirect blow to the head.
A 'shoulder sprain' refers to a tear of the ligaments within the shoulder joint.

3.11 Other Match-related Injuries

One injury occurred during the warm-up in the Senior divisions and these were not included in the analysis of the time-loss match injury incidence, as only injuries occurring during the match play counted as match injuries.

- The School Senior Cup warm-up injury was diagnosed as a low-back muscle strain and occurred during non-contact drills in the warm-up.

4.0 Training Injuries

4.1 Overall Time-loss Training Injuries

For the 2018-2020 school season, training injury data is presented below. For operational reasons, as the frequency and duration of training sessions were not recorded for this season, training injury incidence rates were not available. Therefore, the total number of training injuries that occurred are reported.

Any injuries resulting in 0-1 days absent from Rugby match or training activities were considered to be medical attention injuries and were not included in the analysis of time-loss injuries, as per international best practice. [1-3]

The overall number of training injuries for the School Senior Cup teams across the two seasons was 49. Table 7 shows the overall number of training injuries for the School Senior Cup teams.

Table 7: Training injuries in the School Senior Cup

	Division	No. Players	No. Injuries
School Senior Cup	23	665	49

4.2 Training Injury Classification

The injury diagnosis refers to the specific bodily location and nature of the injury.

The most common injury diagnosis for the School Senior Cup teams was ankle sprains accounting for 20% of all training time-loss injuries. This was followed by hamstring strains accounting for 16% of all training time-loss injuries.

Table 8 shows the most common specific training time-loss injury diagnoses for the School Senior Cup teams across the two seasons (2018-2020)

Table 8:[5] Overall most common injury diagnoses for the School Senior Cup teams (%frequency).

School Senior Cup 2018-2020
Ankle Sprains (20%)
Hamstring Strains (16%)
Calf Strain (8%)
Hip/Groin Strain (8%)

5 An 'ankle sprain' refers to a sprain of the ligaments either on the outside (anterior talofibular (ATFL) ligament) or the inside (deltoid ligament) of the ankle joint. An ATFL sprain is the most common type of ankle sprain.
A 'hamstring strain', refers to a tear of the muscle group located on the back (posterior aspect) of the thigh.
A 'calf strain' refers to a tear of the muscle group located at the back of the shin.
A 'hip/groin' strain refers to a tear in one of the muscles located in the groin/hip region.

4.3 Body Location of Training Injuries

Overall, the ankle and the posterior thigh were the most commonly injured sites in the School Senior Cup teams, accounting for 20% and 16% of all training time loss injuries respectively.

Figure 7 shows the incidences of injury according to bodily location for the School Senior Cup teams.

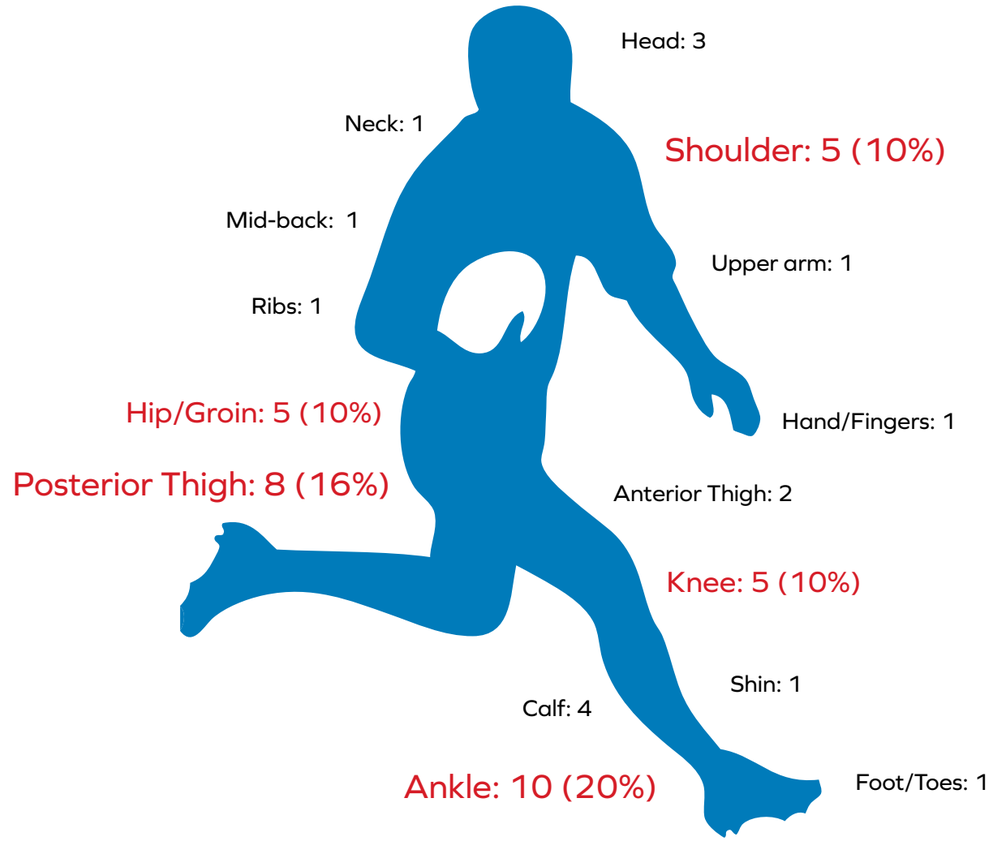

Figure 7: Location of training injuries for the School Senior Cup (number of injuries).

4.4 Nature of Training Injuries

The nature of injuries refers to the type of injury occurring.

Sprains (referring to ligament tears) and strains (referring to muscle or tendon tears) were the most common injury type in the Senior Cup teams across both seasons (2018-2020).

Figure 8 shows the nature of time loss training injuries for the School Senior teams.

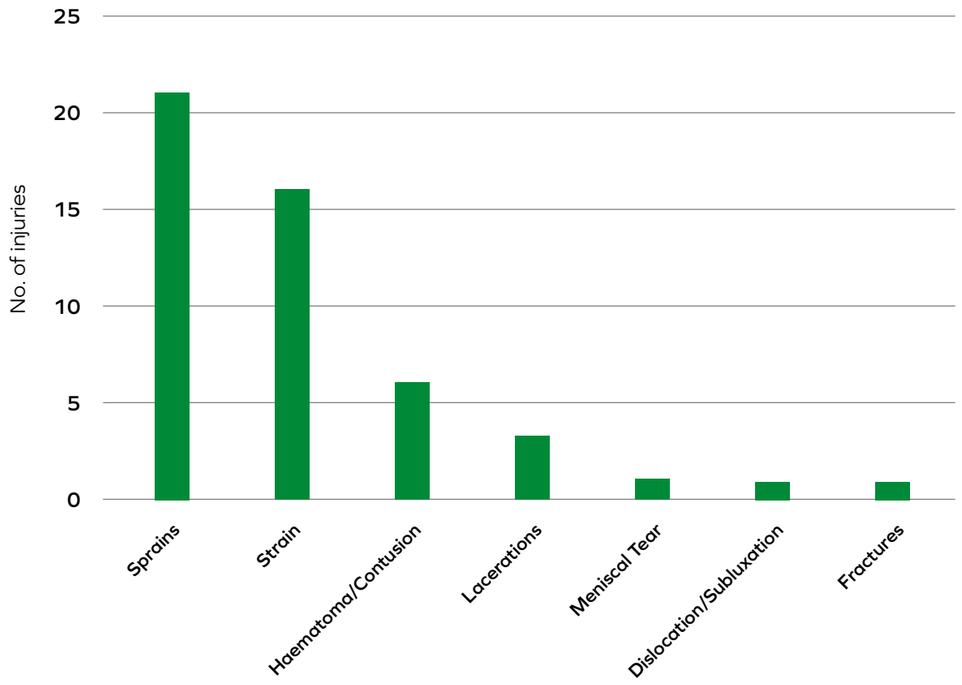

Figure 8: Nature of injury (number of injuries).

4.5 Training Injury Event

Figure 9 shows the events surrounding the occurrence of a training injury for the School Senior Cup across both seasons (2018-2020).

Contact Drills was the most common cause of injury for both the Senior Cup teams accounting for 53% of time-loss training injuries.

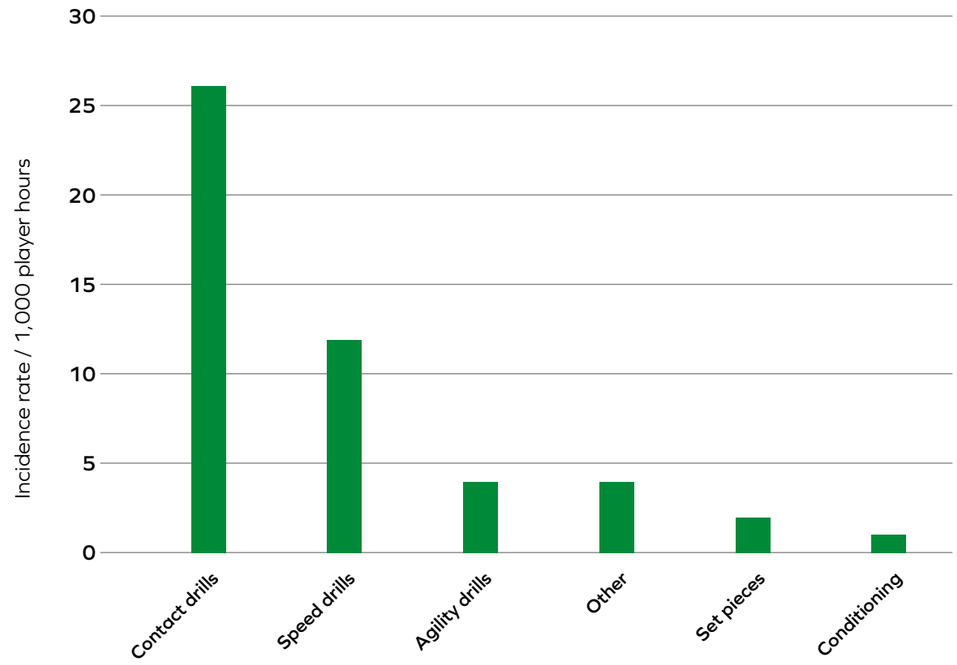

Figure 9: Injury event (number of injuries)

4.6 Training Injury Severity

Injury severity was calculated as total number of days absent from Rugby match or training and classified according to the World Rugby Consensus guidelines. The majority of injuries were moderate or severe (resulting in greater than eight days absent), as shown in Figure 10.

Slight injuries (0-1 days absence) were considered as 'medical attention injuries' and were not included in analysis of time-loss injuries, as per international best practice. [1-3] Slight injuries are discussed in more detail in sub-section 4.8.

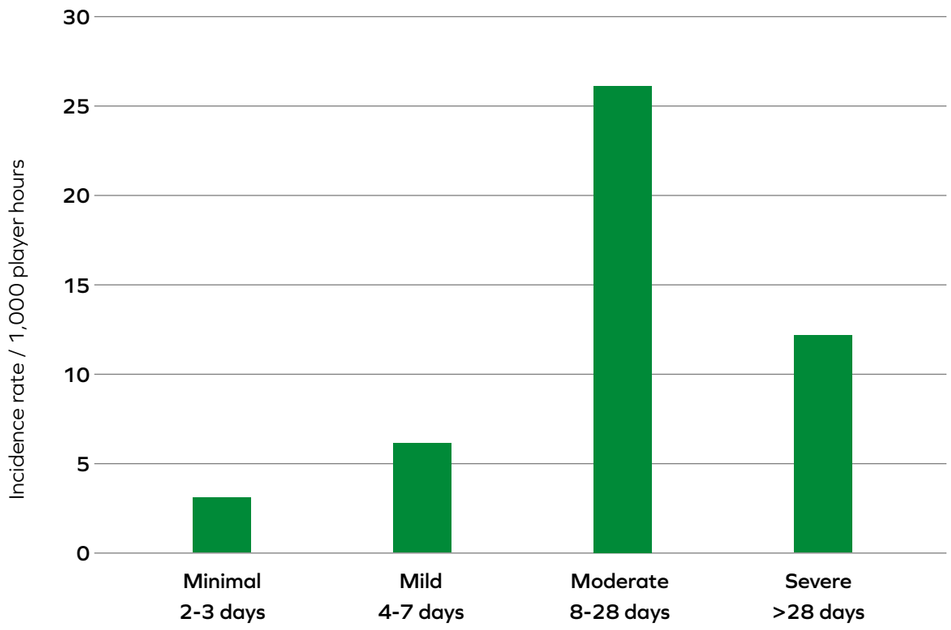

Figure 10: Training Injury severity (number of injuries)

4.7 Training Injury Burden

The burden of an injury assesses the frequency of an injury in relation to the severity of the injury (measured as the number of days absence).

Exposure was not measured in relation to training injuries, therefore days lost per 1,000 could not be calculated. Frequency of severe training injuries along with average total days off are reported.

Ankle sprains accounted for 33% of all severe training injuries (>28 days absence) in the School Senior Cup across both seasons and resulted in an average of 24 days absence from Rugby match or training activities.

Table 10:[11] Frequency (%) of severe training injuries, average TDO (total days off)

	Injury Burden	Average Total Days Off
School Senior Cup	Ankle Sprains 4 (33%) Knee ligament sprain 2 (17%)	24 50

4.8 Medical Attention Training Injuries (slight injuries)

Any injury resulting in 0-1 days absent from Rugby match or training is considered a slight, or 'medical attention' injury and therefore were excluded from the analysis of time-loss injuries, as per best international practice. [1-3]

During the 2018-2020 season there were two medical attention training injuries in the School Senior Cup. The diagnoses for the medical attention training injuries in the School Senior Cup included an overuse hip/groin muscle strain and an overuse hamstring strain; both occurred during non-contact training drills.

11 An 'ankle sprain' refers to a sprain of the ligaments either on the outside (anterior talofibular (ATFL) ligament) or the inside (deltoid ligament) of the ankle joint. An ATFL sprain is the most common type of ankle sprain.
A 'knee ligament sprain' is a tear to one of more of the ligaments of the knee joint.

5.0 Future Directions

Following previous successful seasons of the IRISweb system implementation in Schools' Rugby the 2022-2023 season will expand recruitment to include more nationwide representation of Senior Cup schoolboy teams. For the first time the 2022/2023 season will aim to include surveillance within a cohort of girls' schools teams.

The IRIS Project began a control feasibility study in the senior amateur 2021-2022 season measuring an intervention programme called ENGAGE. ENGAGE is a bespoke Rugby readiness and robustness programme which aims to improve overall player performance and reduce injury risk. Through a structured and progressive 3-phase warm-up, ENGAGE aims to prepare players for the immediate training and match ahead, while increasing long-term player robustness, thus aiming to reduce the risk of injury. IRIS plan to explore this programme in the underage schools game in future seasons.

6.0 Publications and Conferences

6.1 Journal Publications

Dolan P., Kenny I.C., Glynn L.G., Campbell M.J., Warrington G.D., Cahalan R., Harrison A.J., Lyons M. and Comyns T.M. (20xx). Risk Factors for Acute Ankle Sprains in Field-Based, Team Contact Sports: a Systematic Review. The Physician and Sportsmedicine. IF 2.241, Q2, 55/116 [in press] DOI: http://dx.doi.org/10.1080/00913847.2022.2093618

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6.2 Conference Communications

Li Y. and Kenny I.C. (2022) Comparison of injury for non-contact sports (track) versus contact sports (Rugby). Proceedings of the 69th ACSM American College of Sports Medicine Conference 2022, 31 May - 4 June 2022, San Diego, USA.

Yeomans, C. Invited plenary speaker. (2022) The IRIS Project; Research challenges and solutions in the community game. Proceedings of the 2022 World Rugby Player Welfare and Laws Symposium. 22-23 March 2022, UK.

Kenny, I.C. & Comyns T.M. Invited plenary speakers. (2021) 'Irish amateur community Rugby women's and men's comparative injury surveillance'. Proceedings of the 2021 University of Bath Female Rugby Union Research Symposium. 2 December 2021, Bath, UK.

Yeomans, C., Comyns, T.M., Cahalan, R., Warrington, G.D., Harrison, A.J., Purtill, H., Lyons, M., Campbell, M.J., Glynn, L.G. and Kenny, I.C. (2021) A Comparison of Injuries between Male and Female Amateur Rugby Union Players. International Olympic Committee (IOC) World Conference on Prevention of Injury & Illness in Sport, 25-27 November 2021, Monaco.

Dolan P., Comyns T.M., Glynn L.G., Yeomans C. and Kenny I.C. (2021) A 3 Year Investigation of Match Injuries in Amateur Rugby Union. Proceedings of the European College of Sport Science Conference 2020, 8-10 September 2021, Cologne, Germany.

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Yeomans C., Kenny I.C., Comyns T.M. and Van Dyk N. (2021) The Burden of Injury, from Amateur to Elite Women's Rugby Union. Proceedings of the Women In Sport & Exercise Conference 2021 (WISE), 19-22 April 2021, Worcester, UK.

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