



Career Longevity Of Male Professional Rugby Players Varies By Age And Career Level Reached But Not Position

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No Disclosures

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Introduction

Rugby is a contact sport played by teams of 15 players with different playing positions requiring different technical and physical attributes¹.

It has a high incidence of injuries, of which ACL injuries cause the most missed game time^{2,3,4}.

Although career longevity after injury in professional rugby players has been studied, it is not known how this compares with the normal career length of rugby players⁵.

Purpose

To determine “normal” career longevity of male professional rugby union players.

To demonstrate how these vary according to age, playing position and career level reached.

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Method

All players in the top 5 worldwide rugby union leagues between 2007 and 2012 were included.

Publicly available match appearance data for these players' entire careers, which spanned the period 1995- 2024, was extracted.

3451 players were studied of which 1194 (34.6%) played at international level. Players were divided in groups according to position: "front row", "2nd row", "back row" and "backs". 835 (24.2%) were "front row" players, 418 (12.1%) "2nd row", 650 (18.8%) "back row" and 1548 (44.9%) "backs".

Univariate and multivariate analyses were used to determine differences by playing position and career level and Kaplan-Meier survival curves were generated.

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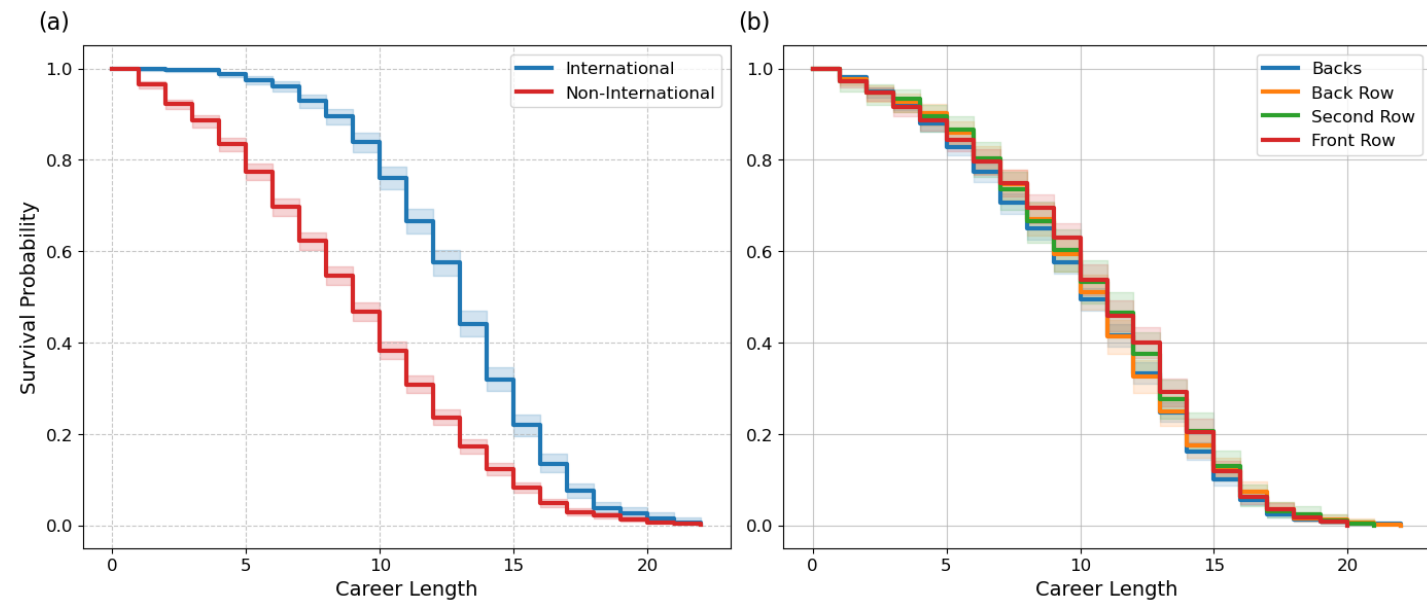
Results: Part 1

Overall career length for rugby players is 12.7 ± 3.6 years.

International players play significantly longer than non-international players (13.8 ± 2.9 years vs 11.4 ± 3.8 years, $p < 0.01$).

Mean career length is 4 months longer in “front row” players than “backs ($12.9 (\pm 3.5)$ vs $12.5 (\pm 3.6)$ years, $p = 0.015$).

Kaplan-Meier Career Length Survival Curves Comparing a) International vs Non-international Players And b) Different Field Positions



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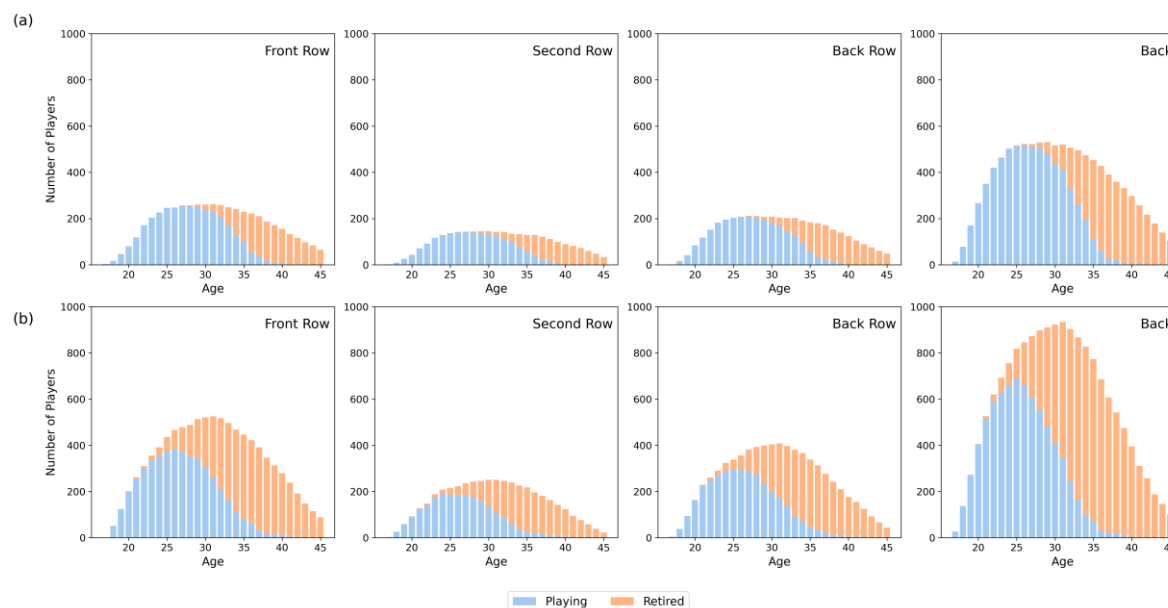
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Results: Part 2

Participation decreases with age with 99.6% of international and 85.3% of non-international players still playing at age 25 compared to 88.1% and 50.1% respectively at age 30.

International players have a 97% chance of playing for 5 years and 76% chance of playing for 10 years compared to 77% and 38% respectively for non-international players. ($p < 0.01$).

“Still Playing” and Retired Rates by Player Age and Position in a) International Players and b) Non-International players



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Discussion

Forwards are substantially bigger and stronger¹ than backs which may account for the small difference in their career lengths.

Although injuries have been found to be more common at international level³ this does not seem to affect career length.

These career longevity findings can be compared with career longevity after injury to determine the long-term effects of injury and treatments. However, given the difference in career longevity between international and non-international players it is important that comparisons are made between players of the same international or non-international standard.

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Conclusion

International players have significantly longer careers (13.8 years) than non-international players (11.4 years), but position played has less effect on mean career length.

International players are 39% more likely to play for 10 years than lower league players.

These findings can be used to put career longevity outcomes after injury into perspective.

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