Abstract

Women rugby players are participating in the sport at the highest levels to date. However, despite this increase in participation, sports sciences, and sports medicine/sports physiotherapy (SEMS) research output has not mirrored this increase. Females have hormonally mediated anatomical and physiological profiles, which may have implications for rugby performance, injury risk, and rehabilitation outcomes. However, hormonal fluctuations and the physiological differences between the sexes are not the only contributors to sex- related differences in the rugby experience. Rugby is a highly gendered environment, which operates within a hegemonic masculine norm and marginalises female and women athletes. Further, while women players in general are underrepresented in sports sciences and SEMS research, women rugby players and experts from ethnic minorities and the Global South are near invisible in the literature as they are marginalised on multiple fronts. Sports sciences and SEMS research should take an intersectional lens to investigate the joint relationship between the various sources of inequity in rugby. Intersectional research in women rugby players would encourage the conceptualisation and analysis of the complex social inequalities that the most marginalised women players and those who simultaneously negotiate multiple identities experience. Such data can better inform federation-level interventions and policy changes to address the needs of historically marginalised player populations as our research portfolio will be more representative of the world's rugby population.

Keywords

Intersectionality; Feminist theory; Critical Race theory; Interdisciplinary research; Global South; DEI in sport

Key points

- Women's rugby participation has increased globally. However, despite this increase in female participation, sports sciences and sports and exercise medicine/sports physiotherapy research output has not mirrored this increase in participation.
- The physiological differences between males and females are not the only contributors to sex- related differences in injury risk, performance, or rehabilitation outcomes. The gendered environment, which privileges men and marginalises women also contributes to these differences.
- Intersectional rugby research moves beyond the outlook of a strictly biomedical approach to injury, rehabilitation, and performance and offers a unique perspective on the broader social, institutional, material, and discursive contexts in which the most marginalised women players and those who simultaneously negotiate multiple minority identities participate in rugby.

Funding information

None

Disclosure statement

The author reports there are no competing interests to declare.

Acknowledgements

None

Introduction

Despite the global growth in participation and professionalism of women's rugby, current sport science and sports and exercise medicine/sports physiotherapy (SEMS) research in rugby has to date taken for granted numerous sociocultural identities by mostly adopting a White, European, heterosexual, male perspective in authorship, participants, and theorising(1). Consequently, women rugby players are significantly under-represented within sport science and SEMS research, which impairs the development of evidence-based approach to practice and policy in women's rugby(2). To rectify this, in 2017 World Rugby (WR) launched a strategy that included dedicated focus on women's player welfare(3). However, this strategy, and its subsequent interpretation by sports researchers, with its heavy focus on the biological aspects of women's player welfare, disproportionately benefits the privileged members of the female/woman group(s). This further marginalises women players who experience multiple systems of disadvantage such as women players from the Global South(4). The aim of this article is to highlight the importance of contextual considerations in developing this evidence base and propose an intersectional approach to sports science and SEMS research in women's rugby. In this article, sex (e.g., female, male) refers to biological features/processes often linked to external morphology, including reproductive organs, genes, hormones, gonads, chromosomes, secondary sex characteristics and the brain. While gender is a social construct that considers the roles, behaviours, activities, feelings, attitudes, and attributes that a given society typically attributes with being masculine or feminine (e.g., man and woman)(5). Therefore, the terms female/male (sex) will be used to refer to biological phenomena such as the biology of the menstrual cycle, while gender (woman/man) will be used to refer to the sociocultural/ economic attributes.

Biology does not exist in a vacuum: The gendered sporting environment.

Females differ anatomically, physiologically, and psychologically from males. These sex differences translate to unique anthropometric and physiological characteristics for female rugby players, which may have implications for physical preparation. Notably, female players have breasts, which are vulnerable to direct blows and are a female specific injury location (6-8). Additionally, female players experience the menstrual cycle, which has been shown to negatively affect performance (9-16). They may also become pregnant, a stage which has unique participation and performance considerations during and after (17). Ultimately they experience peri- menopause and menopause, which also has implications for performance and injury risk (18).

Hormonal fluctuations and the physiological differences between males and females are, however, not the only contributors to sex- related differences in injury risk, performance, or rehabilitation outcomes in rugby players. While females may well respond differently to training stimuli because of their hormone profile, it is noteworthy that the rugby environment is a highly gendered environment. Contact sports are considered 'the last true male preserves', and rugby in particular is called a 'White man's game' which operate within a hegemonic heterosexual, masculine norm. The whole system is optimised for male biology and stereotypical masculine characteristics such as bawdy songs, excessive drinking, and sporting violence(19). Women rugby players who infringe this hegemonic masculinist and heteronormative enclave are 'othered' and considered 'trespassers'. They are symbolically and sometimes physically degraded, vilified, or even assaulted and are subject to widespread heteropatriachal sanctions (20-23). Hence, different genders experience the rugby environment differently *because of* not despite their gender(19, 24). Therefore, when female athletes experience higher risk, incidence, and severity of injuries(23, 25-27), it may not be entirely intrinsic factors like biomechanics, menstrual phase, genetics, or neck muscle strength(28). It is more likely extrinsic as the clinical features and natural history of injuries such as concussion are modelled on the male clinical experience and society reacts differently towards rugby injuries in women players(29, 30). Women rugby players are also more likely to have poor or minimal experience of proper tackle technique(31, 32) and not meet physical match/training demands of the sport because they have inconsistent playing, training, and nutritional programs(20, 31-34). Additionally, women players have substandard access to athlete support personnel (ASP) such as physiotherapists and conditioning coaches(31, 32, 35, 36). When they have them, these tend to be less experienced and have minimal general public support (31, 37, 38). Often, women start playing rugby in adulthood and hence have poorer psychomotor movement patterns, which may be an injury risk factor(30, 37). Moreover, most women players have dual careers and are part time athletes in precarious work, with neither medical insurance nor corporate sponsorship(20, 37, 39). They also have longer travel time to and between rugby activities, sometimes on foot(20, 32), wear ill-fitting boots, and tend to play on poorer quality sports fields(35, 40, 41). Furthermore, women players are less likely to participate in strength and conditioning injury prevention programs because of negative attitudes towards female athletic bodies or lack of access to conditioning facilities(42, 43). Individually, these contextual elements may not increase rugby injury risk or affect performance, but collectively, these circumstances may line up like holes in Swiss cheese and substantially increase the risk of injury and impair performance. We need to accept that the biology of female players does not exist in a vacuum, it exists in a gendered environment that actively makes it more likely for women players to get injured. It is not female sex that is the risk factor for injury, it is the way the rugby environment treats females, sexism, that is the risk factor.

This has led to calls and strategies to invest more in holistic women's player welfare such as through the conduct of more gender specific research in different contexts(2).

Out of sight, out of mind: Women rugby players from the Global South

While there has been a wave of interest in research in women's rugby in general, we ought to reflect on where, on whom, and by whom the focus of this research has been. To date, elite women athletes and researchers in high income countries (HICs) have disproportionately been the subjects of, beneficiaries, and generators of this research and global focus, with women rugby players from ethnic minorities and those with poor access to care conspicuously absent. Data from the social sciences shows that while the HICs of the Global North make up 12% of the world's population, they make up nearly 80% of all global research participants(44). Hence, most research is conducted on a minority of the world's population and applied *en masse* to the majority. Evidence from the sports sciences and SEMS shows a similar trend with an overrepresentation of White, male individuals from the Global North in the sports sciences and SEMS professoriate and the research data(45). Hence, while women rugby players in general are underrepresented in the sports sciences and SEMS research, this number shrinks even further when factors such as ethnicity, citizenship, and socioeconomic status (SES) are factored in(46). Ultimately, women players and experts from ethnic minorities and the Global South face (at least) triple jeopardy in their invisibility from the literature and decision-making bodies. First, as women players in general; second as women of colour; and third as citizens of the Global South. Notably, a recent Delphi study and scoping review to establish future research priorities in sports science and sports medicine in women's rugby consulted 31 experts in women's rugby, none were from the Global South(47). Similarly, of the experts consulted to investigate current practices in the physical preparation of female rugby players, only one expert (from 37) was from the Global South(48). This relative invisibility in sports science and SEMS literature of women players from the Global South is significant because while a rugby player's ability to perform at an elite level is largely influenced by intrinsic factors, these are quickly superseded by the constellation of systemic social factors that shape their daily reality and determines their life chances, access to sport development, funding, and medical resources(46). However, the current drive for increasing research women rugby players and reducing the gender data gap emphasises the biology of the female player and the biological impacts of female health related factors (e.g., the menstrual cycle, pregnancy, menopause) on injury, performance, and rehabilitation, almost to the exclusion of all else. This perpetuates the invisibility of marginalised female and women players in the literature.

Despite the acknowledgement of the different lived realities of women rugby players in other sports literature and in public discourse, the sports sciences and SEMS as disciplines neglect to

address these social, cultural, and economic factors in research and practice(46) and even considers them as confounders(49). Studying the lived realities of women rugby players could be an opportunity to deepen our understanding of how these elements shape athletic performance, injury risk, and rehabilitation outcomes in women rugby players, and apply this to our management of women rugby players. Consequently, as researchers and practitioners in sports sciences and SEMS, we are advancing our description of the biological components of injury and performance in female rugby players, but that of the non-biological factors is still in its infancy. We not only need high quality, and methodologically robust research that explains the biology of the female athlete(50), but research that explicitly recognises non-physical factors and explores the psychological, social, and contextual alongside the physical for women rugby players(46).

In particular, there has been an increase in research on knowledge and experiences of the menstrual cycle and menstruation in female athletes including rugby players. However, while we know that understandings and experiences of the menstrual cycle are environmentally, culturally and economically informed(51, 52), barring a few exceptions, most data on the menstrual cycle in sport is on female athletes from HICs in the Global North. This work seldom includes diverse athlete populations and recommendations thereof may thus not be culturally safe, acceptable, or economically viable for all. For example, while the use of hormonal contraceptives (HC) to alleviate period anxiety and ostensibly prevent injuries is common and accepted in female rugby players in Western countries(13, 15, 53, 54), community level socio-cultural norms in Africa and other societies prevent young (unmarried) females from using contraceptives, with only 10% of female African athletes and 2% of female Singaporean athletes using HC(16, 55). Additionally, in the study of menstruation in sport participation and performance, seldom has access to menstrual hygiene products, a socioeconomic issue, been addressed. This is likely because it may be taken for granted that elite female players have access to menstrual hygiene products. This may well be true for female players in HICs but is not so for 30% of African female football players(16). Additionally, recommendations on team communication about the menstrual cycle and menstruation are based on Western understandings and meanings of menstruation, without much regard for how menstruation is framed in other cultures(52). This invisibility in the literature of women players from the Global South results from a focus on them as either women, athletes of colour, or athletes from the Global South, but not the point of intersection of their various minority identities(56). Individual lives cannot be fully understood by studying narrow categories of identities —gender, ethnicity, age, SES, sexual identity, disability, citizenship, etc—in isolation. Rather, individuals must be considered at the intersection of all their identity categories(57). Therefore, intersectional approaches to women's rugby research are needed to create meaningful changes in rugby research that benefits *all* women rugby players.

Intersectionality in rugby science and SEMS research and practice

Intersectionality is a theoretical framework that originates in Black feminist scholarship and investigates how interlocking systems of power and oppression at the societal level influence the lived experiences of historically and socially marginalised groups(58). Intersectionality was first conceptualised in the early 90s to address the double jeopardy that Black women in the United States of America faced. Feminist theory and anti-sexist advocacy addressed the needs and circumstances of middle-class White women, while Race theory and anti-racism advocacy had a Black male default, which rendered the experiences of Black women all but invisible(58). The main ethos of intersectionality is that a unidimensional analysis of race/ethnicity, sex/gender, ability, or other minority identity has focused on the most privileged members of the group in establishing how to eliminate marginalisation. Chiefly, the experiences of middle-class White women are not representative of the experiences of all women, nor are the experiences of Black men of all people of colour (POC).

Though the concept of intersectionality is seldom discussed in the actual practice of sports and exercise sciences and SEMS, it is increasing in sports management and leadership literature(59). More commonly, it often informs the literature of medical education, medical sociology, and public health, as well as other disciplines focusing on women's health(49, 60). Intersectionality research in these fields has shown that the health disadvantages associated with being a Black woman are greater than the sum of disadvantages associated with being Black and those of being a woman(61). Notably, being a woman of colour decreases the likelihood of receiving primary care interventions for substance abuse, triples the risk of mental health conditions, and hypertension compared to White men, White women or men of colour (62-64). Additionally, the protective effects of SES in health outcomes are nullified when ethnicity is considered as ethnic minorities with high SES have the same or worse health outcomes than lower SES White counterparts(65). Further, ethnic minority status is negatively associated with biomarkers of healthy aging(65), while sex and gender minority (SGM) people of colour are more likely to experience mental health conditions(66), higher rates of discrimination(67), and cancer(68) than cisgender POC or SGM White counterparts. Black SGM men are less likely to use HIV preexposure prophylaxis than their White counterparts(69), and women of colour have up to 80% higher breast and cervical cancer mortality than their White women counterparts(70). In clinicians, those who identify with multiple minority statuses experience greater alienation in clinical practice(71), workplace discrimination, lower occupational opportunity (72, 73), and experience higher rates of role incredulity(74). Intersectionality can also be observed in clinical sport medicine. Notably, the effects of Covid-19 pandemic on athlete welfare were differentially experienced globally: male, able bodied athletes in HICs fared much better than women athletes overall and even better than female

and women athletes from LMICs(75, 76). Additionally, African American high school athletes have the highest incidences of exercise related sudden cardiac arrest (SCA)(77) and three times lower survival following exercise related SCA than their White counterparts(78). Some authors have attempted to identify a genetic cause to explain the disparities in outcomes(79), but it is likely that being inherently an athlete of colour (AOC) does not increase risk of SCA or death, but how one is treated for being a AOC does: more economic deprivation, less resources, racial violence, and disempowering coach-created climates(80).

Clinicians and researchers in female athlete health have thus come to understand that the experiences of the default (White) male rugby player do not encompass everything we need to know about performance, injury risk, rehabilitation outcomes, and experiences of the rugby environment. Historically, the experiences of the White, able bodied, heterosexual, male rugby player (often) from a HIC have been used as representative of all rugby players worldwide. Paradoxically, in women's rugby, our current drive to bridge the gender data gap and conduct more gender specific research, by overemphasising the laboratory based biological studies of the female athlete(50), privileges the hegemonic members of the women group (read: not women players from the Global South). Here too, the experiences and circumstances of (often) White, able bodied, women rugby players largely from HICs are now representative of all women rugby players globally. In particular, research shows that women rugby players contend with sexism(81, 82); feel alienated in the rugby environment(19); tend to be of lower SES as they earn considerably less than their male counterparts(83); and female apologetic behaviour, and gender-role conflict are prevalent in women's rugby (24, 81). However, these reflect the experiences of predominantly White women players from HICs and exclude the Global South narrative as very little empirical research has been conducted in non-Western or racial minority women's rugby contexts (20, 52, 84-86). We have moved from having the White, man player's experience as the default narrative in rugby injury characteristics and recovery, which informed rehabilitation guidelines(87), to having the White, HIC woman player's experience as the default narrative for all women rugby players. The White HIC woman player's experiences of the rugby ecosystem should not be the default as the interaction of marginalised ethnicity with gender, SES, citizenship, and other identities leads to distinctly different experiences than in men or hegemonic women counterparts(86). Even when rugby research is from low and middle income countries (LMICs), and even when it includes players from diverse ethnicities, the men are the default (88-98). Hence, even when do have the Global South perspective in rugby research, the experiences of women rugby players are silenced, and data derived from men informs evidence based technical training, provision of medical care, and injury prevention strategies for women players (99).

For the most part, sports science and SEMS research in women's rugby compartmentalises these biological and contextual factors into unidimensional entities hence examining the roles of racism, sexism, ableism, or religious intolerance in isolation (e.g., race/ethnicity, sex/gender, ability, ***or*** religion)(100, 101). By homogenising minority groups such as POC, women athletes, or athletes from SGM assumes that those who share a specific minority identity have similar experiences of the rugby ecosystem (102-105). Consequently, researchers and clinicians fail to consider women rugby players from the Global South separately from men of colour or White women in rugby. Such an approach ignores the simultaneity of multiple group identity and all but guarantees that the uniqueness of their "triple-bound", situation is often ignored even when it plays a significant role in determining the nature and quality of their experiences of the rugby ecosystem(20, 56). This essentialist approach forces women players from the Global South to identify in categorical terms, either as a racially minoritized athlete or as a woman athlete, failing to acknowledge how the multiplicity, and intersectionality of those minority categories force them to negotiate multiple minority identities in their experiences of the rugby environment(106). This can be exemplified by how elite women rugby players of Māori and Samoan heritage have to strike a balance between culturally specific eating practices and adhering to the strict Western based high performance nutrition plans(52). However, very little work has been conducted specifically in women athletes of colour to explore the unique socio-economic and culturally based risk factors for eating psychopathy that reside at the intersection of ethnicity, gender, SES, ***and*** athlete status(107). For women players, they are shaped by their experiences as a whole and by dividing up and addressing single categories of minority identity, key interactions between multiple social positions that create compounding experiences of oppression and privilege are overlooked(60, 108). A Samoan women player is not, for example, a woman on Monday, a citizen of the Global South on Tuesday, and a person of Samoan descent on Wednesday. She is always, at any given time, all of these and her high-performance nutritional plan should acknowledge that(52, 57).

Sports science and SEMS research in women's rugby should investigate the joint relationship between the various sources of inequity in the sport and understand that these factors are interlocking, mutually constituted, and reinforcing (e.g., race/ethnicity, sex/gender, ability, ***and*** religion)(109, 110). Such an approach acknowledges that the axes of minority identities cannot be simply added together, but they coalesce and create their own unique form of advantage or marginalisation. The hijab as a contentious issue in sport apparel perhaps emphasises the perils of studying women as a homogenised group and the need for an intersectional lens in women athlete health research. Due to culturally embodied and religious beliefs in how women ought to be, the intersection of gender + ethnicity + religion produces unique challenges and opportunities that influence the rugby participation of Muslim women in complex ways(101, 111). Consequently, religion, combined with gender and racial minority

statuses, acts as a barrier to sport participation among South Asian and Muslim girls(100, 112). That the hijab is banned in public in some countries(113), was subject to an arbitrary decades long ban with no empirical evidence in women's football(41, 100), hijabis are still an exception rather than normalised in women's rugby(114), and that most commercially available hijabs are uncomfortable during sporting activities(115) only emphasises the need to for more intersectional research in women's rugby. An intersectional approach would proactively explore the confluence of all of these minority identities in women players' experiences of the rugby environment and consider how these different minority identities simultaneously affect an individual's experiences of the rugby ecosystem. It would also investigate how those of multiple minority statuses may experience effects of intersecting systems of oppression, which are often obscured by unidimensional approaches to studying stratification(109, 116).

In the delivery of care to athletes, the intersectional relationship between race/ethnicity, SES, and gender alters one's social context and life course opportunities, risk of some conditions, their access to and quality of health care, health outcomes, stressors, and protective buffers(117). Hence, understandings of what a sports injury, for example, means and what should be done about it may differ depending on an athletes' relationship to dominant power structures present in their sport. Therefore, advice that may be helpful to players in the hegemonic group may not be applicable in the same way for minoritized athletes and practitioners should therefore consider players' intersecting identities and mitigate their gendered and racialized experiences(101). In the practice of SEM, intersectionality can also reduce systematic issues such as symptom minimization, diagnostic overshadowing, and misdiagnosis as clinicians reckon with how they as practitioners are influenced by theirs and their athletes' identities(118). Intersectionality thus moves beyond the outlook of a strictly biomedical approach to injury, rehabilitation, and rugby performance and offers a unique perspective on the broader social, institutional, material, and discursive contexts in which these encounters unfold(119). Intersectional research in women athletes would thus encourage researchers to conceptualize and analyse the complex social inequalities that the most marginalised women athletes and those who simultaneously negotiate multiple minority identities endure(100, 101, 110, 116). It is not enough to know that women rugby players experience sexism through a gendered sporting environment that increases their injury risk and prolongs recovery (23, 27), we also need to know their ethnicity, sexuality, religion, age, and residency/migration status, among other factors, to better understand their unique experiences of the rugby environment(57) and apply an intersectional lens to our research and practice philosophies in women's rugby.

Where to from here?

Various critical theories such as feminist standpoint theory, Black feminist theory, queer, Indigenous, and disability justice theories can be adopted by sports science and SEMS scholars in the intersectional study and care of women rugby players(101). Feminist standpoint theory is a theoretical perspective that recognizes the social location and positioning of sports science knowledge that are structured by power relations. Feminist standpoint theory also challenges traditional assumptions by intentionally examining the perspectives of women and asserts that gender is inextricably linked with ethnicity, SES, and other social identities(120). Hence, qualitative sports research grounded in feminist praxis, which translates theoretical knowledge into tangible action, would better conceptualise the sports experiences of marginalised women rugby players, and inform any local or global initiatives by sports practitioners to improve their welfare (121). Additionally, Black feminist theory, though similar to feminist standpoint theory, allows for a deeper understanding of the intersecting marginalisation faced by women of colour by acknowledging that they are 'othered', must negotiate multiple minority identities, and therefore puts them at the centre of the discussion(86). Further, Frost's theory of sportswomen as biocultural creatures has also been successfully employed to explore the relationship between the social and biological bodies of women rugby players' and experiences of their high-performing sporting bodies(107), and could be another tool available for sports science and SEMS scholars to use in the intersectional study of women's rugby.

However, most ASPs and sports science and SEMS scholars may not have the skills or educational background to engage with these theories. These theories are systematically absent from their education and training and often found in social science, gender studies, or bioethics literature, where intersectionality concepts are buried within the narrative and therefore easily overlooked by sports science and SEMS researchers or practitioners(49, 101). Hence, guidance is needed on how we can be more intersectional in our approach to sports science and SEMS research in women's rugby. This presents an opportunity for transdisciplinary and cross cultural collaboration in sports science and SEMS research and practice(122). A starting point might be with critical examination of institutional policies in the rugby ecosystem, procedures, player management pathways, and practice guidelines. Has the WR policy to have a dedicated focus on women's player welfare resulted in unintended consequences for women players, particularly those from disadvantaged or marginalized demographics?(123). Secondly, we need to ask, 'who is centred?' in our current research on women rugby players. By asking 'who is centred?', we can be explicit about which women's bodies and identities are actually involved in our research and which systems of marginalisation our sport research, or policies will prioritise. In so doing, we are able to highlight those who are in the margins and acknowledge the exclusionary systems within our teaching, research, service, and

consultancy practices in women's rugby(124). If 'who is centred?' is left ambiguous or vague and we do not specifically name who is at the centre, initiatives such as reducing the gender data gap in rugby science research will tend to benefit privileged members of the group(s) we are seeking to include and not the women who face the impacts of many overlapping systems of marginalisation(101). Thirdly, intersectionality and multiculturalism should also be integrated in all aspects of the training of ASPs, to bridge the knowledge and skills deficit and enable them to better manage, care for, and communicate with athletes who identify with multiple minority identities(116, 125). This also requires a shift by ASPs from multicultural competence to cultural humility where self-reflexivity, cultural sensitivity, and a critical examination of one's own identities, as well as their worldviews, are centred(124). Self-reflexivity and cultural sensitivity allow ASPs to situate and critique their own identities in order to recognise and challenge their own assumptions and provide culturally safe care to culturally diversity women rugby players. Using self-reflexivity to confront one's own identity and biases provides a chance to attend to how to exist in one's position and identity without marginalizing another's(126).

An intersectional approach to sports science and SEMS research in women's rugby will undoubtedly be more complex, but it aligns with WR's understanding of player welfare, which goes beyond the physical and includes social, and holistic development(127). It would also more closely approximate the lived realities of most women rugby players by offering a unifying referral framework for research in marginalised athletes such as women rugby players from the Global South and encouraging researchers and clinicians to conceptualise and analyse the complex social inequalities that the most disadvantaged players in the rugby ecosystem experience(128). By encouraging data collection and analysis of intersecting social statuses beyond simply sex/gender and ethnicity, the intersectional framework facilitates a more nuanced analysis of women rugby players as well as highlighting the insidious ways in which macro power structures, rather than operating in isolation, intertwine to generate glaring disparities that go above and beyond individual-level factors(128). This can better inform federation-level interventions and policy changes to address the needs of historically marginalised women rugby populations (128)

Conclusion

As we endeavour to increase research on and improve the care of women rugby players globally, an intersectional conceptual framework offers important insights in ensuring that these efforts are truly inclusive of women rugby players, especially those most marginalised such as those from the Global South. Rather than treating all women rugby players as a

homogenous group and ignoring the potential impact of their other minority identities on their experience of the rugby environment, intersectionality acknowledges how multifaceted differences shape their experiences and engenders a research agenda, performance, and clinical paradigms which can lead to improved outcomes in *all* women rugby players. It puts their perspectives and experiences at the centre of rugby science research and practice rather than in their historical marginal position. An intersectional conceptual framework also requires an exploration of how institutional practices within the rugby environment, even those that seem neutral, unfairly advantage some women rugby players and disadvantage others. It will also help us recognize how athletes who experience multiple marginalisations have learned to survive and how best we can help them thrive. And in doing so, we will ensure that this impetus to train, prepare, and manage female and women rugby players as females and women actually includes *all* women players.

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