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Performance first, athletes second: Experiences of menstrual cycle management in elite Women's Rugby Union

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Abstract

Menstrual cycle-related symptoms can impede an athlete's training and performance. Stigma often restricts open discussion, prompting practitioners to rely on generic menstrual cycle tracking tools to optimize female athletes' health and performance. This study aims to explore the perceived effectiveness of menstrual cycle management practices within elite women's rugby union across multiple nations, premiership clubs, and national governing bodies. One semi-structured interview was conducted with 12 current elite international female rugby union players. Through reflexive thematic analysis, three themes were identified: (a) System-level challenges captured a top-down approach that exposed a clear disconnect between organizational systems and menstrual-cycle management; (b) Performance first, athletes second revealed persistent contradictions in resource allocation and staff engagement, reinforcing a culture that prioritized performance at any cost; and (c) Masked determination captured a culture whereby athletes felt obliged to endure menstrual-cycle challenges, reinforcing both silence and the expectation to appear unaffected. The findings highlighted a lack of consistent and meaningful menstrual cycle support, with athletes' well-being frequently suppressed to performance priorities. Staff involvement was limited, and structural accountability for menstrual health remained minimal, while stigma, performance pressure, and discomfort, especially with male staff, pushed athletes to hide symptoms and manage them alone. Together, these findings underscore the need for evidence-based, athlete-centered guidelines and comprehensive staff education to build a more informed, supportive, and inclusive high-performance environment.

Key words

Menstruation, athlete experiences, existing practices, taboo, interview

Competing interests

The authors report there are no competing interests to declare

Introduction

Women's rugby is the fastest-growing demographic within rugby union worldwide. Between 2001 and 2023, the number of registered players increased by 33.9% (worldrugby.org, 2024). National and global governing bodies have recognized the urgent need for researchers to focus on this rapidly expanding player population. In response, Brown et al., (2023) surveyed 1596 players and 296 coaches to understand their current experiences in the women's game. The survey identified key issues, including a lack of comprehensive injury surveillance, with female health emerging as a top priority for future researchers. In particular, the implications of the menstrual cycle and its impact on training and performance were identified as a critical, yet under-researched area requiring targeted investigation to better inform evidence-based practice and athlete support practices.

Historically, most menstrual-related researchers in women's sport have examined the physiological effects of the menstrual cycle. For example, abdominal and back pain have frequently been cited as a leading cause for missed training sessions or reduced performance among female athletes (Czajkowska et al., 2015; Dehnavi et al., 2018). Brown et al., (2020) expanded this focus by exploring elite female athletes' experiences from a biopsychosocial perspective and found that the menstrual cycle was perceived to hinder performance in competition and training. Similar studies identified systemic social and cultural inequalities within sport that discourage open conversations around menstrual health, particularly within male-dominated sports like rugby (Clarke et al., 2021; Findlay et al., 2020; Kolic et al., 2021; Nolan et al., 2024). These researchers highlight a broader cultural tendency to avoid the topic, which reiterates that tackling the stigma surrounding menstruation is essential to improving knowledge, addressing performance barriers, and informing best practices. Collectively, these studies emphasize the need to challenge persistent stigmas surrounding menstruation to

enhance communication among athletes, coaches, and medical teams, supporting better outcomes in high-performance settings.

In 2020, Dawn Scott, the performance manager for the England women's football team, implemented individualized training programs tailored to players' menstrual cycles (Wrack, 2020). She has consistently highlighted the lack of research in this area, emphasizing that without a deeper understanding, designing optimal training programs for female athletes remains challenging (Scott et al., 2024). Scott advocates for open conversations about menstrual health and the implementation of practical changes across women's sport to drive progress (AIFF Media Team, 2020; Wrack, 2020).

The growing recognition within elite environments mirrors wider societal momentum. Menstrual health awareness is expanding beyond practitioner-led initiatives, driven by activism and wider access to educational platforms such as podcasts, courses, and social media (Koskenniemi, 2023). The Menstrual Symptom Index (MSi), developed by Brunivels et al., (2020), measures the impact of menstrual symptoms on athletic performance and is now used by many elite sports teams (Roffler et al., 2024). Kullik et al., (2024) demonstrated a significant positive association between female athletes' MSi scores and their mental health status; those with higher MSi scores suffered more with anxiety and depression. This suggests that the MSi could be used as a multimodal intervention to assess the physical and mental status of athletes throughout their cycle.

Furthermore, Temm et al (2024) and the Chartered Association of Sport and Exercise Sciences (CASES), have both highlighted the importance of menstrual cycle tracking for female youth athletes. In its 2020 statement, CASES advocated for menstrual cycle monitoring to become standard practice, while also emphasizing the need for practitioners to develop sport-specific practices that raise awareness of women's health. In line with these recommendations, the England Rugby Football Union (RFU) has developed the Female

Health and Wellbeing Toolkit to enhance knowledge and awareness in women's health. These resources are informed by experts within their respective fields and offer essential information on a range of female health topics, including the menstrual cycle, and are supported by webinars and online learning opportunities (RFU, 2025). Collectively, the literature and current initiatives outline the importance of challenging the current perceptions and understandings of the menstrual cycle and other female health topics to optimize the performance and well-being of female athletes.

Findlay et al., (2020) and Owen et al., (2025) were the first to examine how elite female rugby players perceive the impact of menstrual cycle symptoms on training and performance. Findlay et al., (2020) reported that symptoms such as heavy bleeding and abdominal pain negatively affected performance. Building on these insights, Owen et al., (2025) investigated sport-specific menstrual challenges in a global pool of 12 international players, highlighting how these physical symptoms shape athletes' performance, well-being, and participation both on and off the field. However, both emphasized variations across player experience. In particular, Owen et al., (2025) observed that perspectives from different countries revealed variations in education, awareness, and menstrual challenges. These findings, echoed across contemporary literature, underscore the need to evaluate current practices in elite women's rugby to ensure menstrual health is addressed as a central component of athlete support.

Therefore, this study aims to explore the perceived effectiveness of menstrual cycle management practices within elite women's rugby union, across multiple nations, premiership clubs, and national governing bodies. It will examine the approaches currently employed in international programs to support menstrual health and optimize performance, identify key challenges encountered, and explore how global perceptions of the menstrual cycle may influence management practices.

Method

Research Design

A cross-sectional qualitative study design was implemented, using semi-structured interviews with international female rugby union players. The research was grounded in an interpretivist paradigm informed by ontological relativism, which proposes that reality consists of multiple socially constructed and mind-dependent interpretations, and epistemological constructionism, which views knowledge as subjective and developed collaboratively (Smith et al., 2017). Consequently, the methodological approach was structured to investigate players' subjective experiences and identify insiders' perspectives, following the interpretative phenomenological approach (Chun et al., 2019).

Study Participants

Following institutional ethical approval (SAHPS_PB_2022-001), convenience and systematic sampling were used. In total, 9 UK-based teams and 16 international teams were contacted via the team managers' email (obtained through the team's official websites), and six agreed to take part in the study. Participating teams distributed the study information and eligibility criteria to their players. Potential athletes were required to hold a current contract within a national/international setup for at least one season. In total, 12 athletes met the criteria and volunteered to participate in the study, aged 26.0 ± 3.5 years (range 22-33 years), representing eight countries: Australia (n=2), Belgium (n=1), England (n =3), Ireland (n=1), Scotland (n=2), South Africa (n=1), USA (n= 1) and Wales (n=1).

Data Collection

A semi-structured interview format was used to encourage open conversation about key topics such as educational experiences, relationships, and communication pathways, as well as the reporting/ monitoring tools used, to explore the athletes' personal experiences in

150 greater depth (Kallio et al., 2016). The interview guide was piloted with 4 UK Championship
151 One-level athletes to refine question clarity, structure, and timing (Teresi et al., 2022, Bujang
152 et al., 2024). Following the initial pilot, adjustments were made to question phrasing and
153 order, and a second pilot with 2 different participants confirmed the effectiveness of these
154 revisions within the final guide. The final interview guide (available from the first author
155 upon request) consisted of open-ended questions aimed at examining participants'
156 experiences of menstrual cycle management practices and challenges encountered.
157 The interviews were conducted prior to the start of the 2023 Women's Premiership
158 rugby season and following the 2022 Women's Rugby World Cup. Participants who
159 expressed interest were provided with an information sheet and consent form by the lead
160 researcher and returned their signed consent electronically. All interviews took place online,
161 lasted 30.8 ± 5.1 minutes in length (range 24-40 minutes). Audio recordings were transferred
162 and transcribed verbatim by the lead researcher. Overall, 369 minutes of audio were collected,
163 producing 49,411 words of transcribed data.
164 **Analysis**
165 The data were analyzed using Braun and Clarke's (2023) six-phase approach to
166 reflexive thematic analysis. In line with their more recent guidance (Braun & Clarke, 2024),
167 the analysis was formatted around their 'big question' lens. This approach was selected to
168 support the development of organic, data-driven codes rather than imposing predefined
169 categories, and to maintain a flexible, interpretive stance throughout the analytic process.
170 Working with the big question enabled a reflective engagement with the dataset, allowing codes
171 and themes to emerge or recede as understanding deepened and ensuring that the analysis
172 encompassed a rounded understanding of the data collected within the interviews, in addition
173 to aligning potential connections with the research questions.

To facilitate the new approach, familiarization with the data set was imperative. This was achieved through repeated engagement with the transcripts, including reading the texts and listening to the original audio recordings. This process allowed initial and developing thoughts to be annotated within the documents, revisiting earlier transcripts ensured a continuous reflective approach across participants' accounts (Campbell et al., 2021). Re-listening to the audio provided an additional interpretive layer, with time-stamped notes aligned to relevant transcript sections when appropriate.

As familiarization progressed, early codes began to surface and were noted in the margins before being shared with the researcher's supervisory team, who acted as critical friends. The presentations and discussions with the supervisory team further strengthened this reflexive stance, providing opportunities for emerging ideas, tentative codes, and early thematic patterns to be explored, questioned, and refined. Guided by Braun and Clarke's big-question framework, the researcher repeatedly returned to the central analytic purpose of the study, using the big question to evaluate whether developing themes genuinely contributed to the data. Through this ongoing cycle of reflection, dialogue, and re-engagement with the data, themes were shaped or reshaped, resulting in a narrative that remained aligned with the big-question approach. The finalized codes were grouped into a thematic framework to examine patterns across the data set. These themes were then reviewed, defined, and labelled to underpin the final report.

Methodological Integrity

At the time of data collection, the lead author was an active rugby player at the premiership level, bringing valuable familiarity with the sport and its subcultures. This positionality was considered a strength of the research process, as the author's insight allowed for an understanding of sport-specific terminology (Poucher et al., 2019; Vargas & Winter, 2021). Being a cultural insider can strengthen the research process by developing rapport and

generating an environment to approach potentially sensitive subject matters (Forero et al., 2018). Through the process of sharing their own playing experiences, the researcher found that discussing potentially challenging and sensitive topics was more welcoming as the conversation relaxed. The researcher had historical relationships with four participants. This was acknowledged ethically, and clear boundaries were maintained. While familiarity enabled deeper disclosure and appropriate challenge, all questioning remained focused on the study's aims.

Additionally, two methods were used to enhance the methodological rigor of the study. Member reflections were used in the first three interviews, in which participants and the researcher reflected on the structure of the questions and explored the key differences in the content covered in the interviews (Smith et al., 2017). Through this process, later interviews explored specific rugby-related concerns in greater depth, such as the perceived feeling of being undervalued by staff and challenges with their physical health that fell behind the need to win matches. Subsequently, a richer and deeper insight into the developing themes could be gained (Johnson et al., 2020). The second method of methodological rigor was gained through the co-authors (experienced researchers in sport psychology, qualitative methods, and women's health), who served as critical friends (the supervisory team), promoting reflexive engagement and facilitating theme refinement (Smith et al., 2017).

Results

The management practices and perceived cultural status of the menstrual cycle within elite women's rugby were separated into three themes: (a) System-level challenges: the Topdown approach, (b) Performance first, athlete second, and (c) Masked determination: Navigating the cultural taboo. Verbatim quotes are presented within each theme, with participants' identities protected through using pseudonyms.

System-level challenges: the Top-down approach

The implementation of current practices and evidence surrounding the menstrual cycle across women's rugby globally was represented within this theme. Variations in approaches and support systems were identified, particularly in the communication and implementation of practices within each system. The importance of key personnel roles across national governing bodies and contrasting organizational contexts was also highlighted.

Participants emphasized the importance of being understood as a woman in sport, particularly by medical, performance, and technical coaching staff. As Katie explained: "Knowing that there are people who understand working with women and what that entails is important." Billie added that athletes should take some responsibility for understanding their own menstrual health, although knowing that staff are educated and able to assist is important: "Awareness is so important, teaching (athletes and staff) about the different hormones, like oestrogen. I think it would take pressure off the players, as they are not alone." Although participants were aware that understanding their cycle was important, access to tailored menstrual cycle education was inconsistent:

> Having someone come into camp and just helping us understand what points in your cycle you're in, when you're going to be in others, when you should de-load, when you should hit the gym more, and when you should train change of direction. (Elle)

The participant noted there is an opportunity to bring a specialist into camp (when all internationals are together in a training block, before a tournament) and expose players to menstrual education, which they felt could guide and assist independent management of their cycles. Katie also noted the absence of any education at club or international level: "I haven't had anything at club or international team." Although there are some international teams not providing this education, other players reported access to education via different staff, although this was variable.

Francis had received a talk during their time in international training: “We have a doctor. He's done a talk about relative energy deficiency in sport, so energy deficiency and everything, how the hormones can affect us in training. But that was like one presentation.” Additionally, Drew had a more in-depth educational opportunity, which was voluntary: “Last year, we took part in a study (optional), it's basically about the menstrual cycle, and tracks everything: heart rate, resting heart rate, sleep, and how all that stuff can impact your period”. These experiences highlighted an inconsistency in method, content, and exposure to menstrual cycle education within different international setups. Additionally, the professional who was responsible for leading the delivery of the education differed between club and international set ups; in some instances these professionals came from within the club, while other nations relied on external professionals. Consequently, making it hard to unify the knowledge and information that was being transferred to the athlete.

In addition to the inconsistent education between international teams, the participants expressed clear dissatisfaction and frustration with the education they received, highlighting that it often felt one-sided and insufficiently integrated into the broader sporting environment. While the information provided was sometimes valuable, it was typically directed at the athletes alone, placing the burden on them to raise concerns or initiate change. This imbalance left many feeling unsupported, particularly when they perceived systemic challenges:

> We've had good things in the past, like presentations on it (the menstrual cycle), and that's great, it’s really useful. But actually, as little peasants at the bottom like, how are we going to implement the change if the coaches don't buy into it? (Hollie)

The participant's choice of phrasing, referring to herself and other players as peasants, signifies just how low players perceive their menstrual health and wellbeing sits in the staff's hierarchy of importance. The participant's wording further fortifies the notion that menstrual

health and management should be player-led whilst emphasizing the need for change and structure to be implemented and acted upon by influential personnel and occupations within the international environment. Athletes described feeling the need to constantly meet expectations, without space to prioritize their wellbeing regarding their cycles:

> There's just so much pressure to be good all the time from each other, from yourself, from the staff, whereas if the staff normalized it (the menstrual cycle). You wouldn't feel pressure to be in training and to take time. (Katie).

Consequently, athletes are left to feel that there are limited, infrequent channels of assistance, leaving them more likely to 'get on with it'.

Although all participants noted that only a limited number of staff were approachable regarding their menstrual cycle, each was able to identify one person they could turn to. In most cases, the team doctor was the primary individual to approach, Jenny noted: "If you were training and you had a question about something, you couldn't just ask the coach, you would be more inclined to go to a doctor, they would be able to do something". Athletes stressed the importance of discussing concerns with a doctor based on the general perception that they are the most knowledgeable and were, most likely to take action. Elle highlighted: "People are happy to talk to the doctor, but not really anyone else I think it's not a very inviting environment, and it's quite a formal environment, so you need to speak to the Doctor".

However, not all participants indicated that they would approach a doctor, and it was unclear whether this reflected a lack of access to an assigned team Doctor or a personal reluctance to communicate with one. Participants instead reported that the individual with whom they had the most positive relationship with, often the strength and conditioning coach, was their preferred point of contact. Charlie emphasized the relationship with their support system was important when discussing their menstrual cycle:

> I wouldn't really talk to the current doctor (international) about it. It's very much who you feel comfortable with and not just necessarily the role. I would prefer to speak to the strength and conditioning coach in camp and then to my Doctor in the club. But not the international Doctor, they would have to talk to the coaches.

The participants' hesitation to discuss menstrual challenges with the international team doctor, coupled with a willingness to communicate with the international strength and conditioning coach or their club doctor, suggests a link between medical hierarchy and perceived risk of negative repercussions.

Charlie was not the only athlete to emphasize the importance of relationships when discussing their menstrual cycle challenges; similar comments were made by other participants: “I would go to our strength and conditioning coach, he was always so good, on those days where you were in tears, felt like you can't do it, he would help you get it done” (Drew). Allie also would turn to their strength and conditioning coach: “I would say our S&C (international) is very in tune with you know, the importance of understanding menstrual cycle for female fitness and training, I would ask and go to her for anything”.

One similarity across all the participants was the absolute reluctance to approach a skills coach about their cycle: “I would never approach the skills coach in that (international) environment, it's just not something that you would do. They are not medical staff, so wouldn’t be interested” (Hollie). Elle’s perception mirrored Hollie's regarding the lack of understanding on the coach's side: “I don’t think coaches fully understand it”. One participant implied that the perceived lack of understanding and approachability of skills coaches could be eradicated if they were educated: “I don't think they feel like they have a right to speak about it (menstrual cycle). Or maybe they need a more specific person to speak to and get advice from” (Jenny).

The theme outlined the inconsistency of communication, information and method of information transference surrounding the topic of the menstrual cycle. It emphasized a lack of continuity between the professional delivering the content and the specific content being delivered between different international teams. Consequently, the information and education provided to the athletes was dictated by the staff, and any communication or exploration of these topics was based on the athletes' independent relationships with the staff that they deemed to value athlete wellbeing and menstrual health. From this theme, it becomes evident that athletes perceive their menstrual cycle as a deprioritized in relation to performance outcomes, particularly at the international level. This perceived lack of care surrounding the topic comes from some participants' experiences of poor staff engagement, and inconsistent or, in some cases, absence of menstrual education and support.

Performance first, athlete second

The perceived disconnect between the implemented menstrual cycle initiatives and the experiences of the athletes was explored in this theme. A persistent emphasis on high performance, match success, and selection demands was highlighted, often undermining the delivery of athlete-centered support. The theme sheds light on the gap between menstrual cycle management practices and their practical application and success.

The lack of engagement with women’s health provisions was not only present in the absence of physical products and provisions within international club setups, but the perceived lack of attention and importance of athlete’s wellness forms. All participants referred to the use of a wellbeing/wellness form to gauge menstrual cycle phase, either within their international or club team. However, the participants often referred to the forms as a: “Tick box exercise to say we've covered it in our questions, however, they never action anything after it so they are just trying to say they are proactively managing cycles (Charlie).”

Rare meaningful engagement with practices and often perceiving them as a token 'tick box' exercises, was present among most athletes. Georgia highlighted that it was only in their premiership club that they were asked about their cycle on the form:

> We just fill in these wellbeing forms every day before training, and at each date it asks you, like what day of your cycle you're on, and if you're having any symptoms. Although I'm not sure how much they pay attention to it. But that's the first place that I've been where they've actually acknowledged that your menstrual cycle could impact your training, which is really interesting, we don't even get it at ******* (National team).

Players also noted that their responses within the forms were valueless and merited no concern or response from staff, often because training was perceived to be more important than how they reported they felt were:

> With those well-being forms, I'm also like taking the time to write in the box, but you aren't doing anything! Sometimes I wrote that I'm like in excruciating pain in my lower body, and I say I am on day one (bleed), but it's like, oh well nothing's going to get done about it nothing's going to change. (Charlie)

Despite some evidence of menstrual health initiatives, the participants consistently described a performance-driven culture where athletes' menstrual challenges and well-being were overlooked. It was suggested that a lack of staff engagement and recognition of the form's responses could be due to the need to have players on their feet and available for training:

> There have been times when I'm reporting that I am feeling so low, and they can see what time of the month I'm on or even if my symptoms are so bad and I haven't slept so actually continuing with a lot of training will be so hard and they just don't engage with it, they don't want to know because they need you to train (Hollie).

Participants frequently conveyed the perception that staff prioritized performance and team outcomes over individual athletes. They also noted a disconnect between staff knowledge, research, and initiatives, and the subsequent support provided when athletes were experiencing difficulties:

> I think, as athletes, we very much brush it (menstrual cycle challenges) under the carpet rather than try and learn to deal with it, we just think that we have to be fine, all this information is coming out about it, but if they (staff) think we should get on with it then I guess we just need to deal with it. Sometimes they have been low (wellbeing scores), especially like post night shift, but only once did the physio bring it up and say my scores were low today, but they didn't pull me from anything, and that was at the start of a campaign. (Charlie)

Elle assumed that it was due to pressure from the coaches that the medical staff were hesitant to pull athletes out of training: "Our coaches are quite demanding, I don't think our medical would tell them we needed to miss the session. There is just so much pressure to be performing and on form all the time." The lack of engagement with women's health provisions was not only present in the perceived lack of attention and importance of athlete's wellness forms but also through inconsistencies and fluctuations into tangible support. The accessibility of menstrual products to players while training was one of the most common initiatives reported by the participants, but even this simple act of support was inconsistent: "At the last World Cup, I know that we had a supply, like a shared supply of tampons for the team (Allie)." However, other participants expressed anxiety around the lack of availability of these products.

> I get paranoid about a heavy flow and not having anything (menstrual products) available if I play and I'm heavy, it's the kind of thing that is on my mind. It would be

so much easier if the physios had some stuff in their bag and we could go and get it if we needed it. (Billie)

The participants who had no access to menstrual cycle products within their team environment made direct associations to funding and financial infrastructure.

> As female athletes, we are massively underpaid, and on some days, not having to buy tampons because I forgot them or have come on and don't feel comfortable asking one of the other players means that I can use that money for something else. (Georgia)

Participants further implied that the lack of funding and perceived negative attitude towards women's rugby from governing and organizational personnel within international teams led to a general lack of engagement towards women's general health. This implies that menstrual product availability and the challenges posed by menstruation were again deemed low on the hierarchy of importance, once more falling short to performance outcome.

> We don't get anything different from the men; there is nothing extra for the women, all the kits are made with the men's team on their mind, all the supplements are provisionally just for the men, we just get hand-me-downs. Nothing is in place for women's health; we even share changing rooms and toilets with them, so of course, they aren't going to put tampons in there. I guess it's because the men bring in the money. (Billie)

This theme revealed a culture where performance is prioritized over athlete wellbeing and their menstrual needs. The experiences of the participants highlighted the disconnect between the resources available and an inconsistency in staff responses when raising concerns regarding the players' menstrual cycles.

Masked determination: Navigating the cultural taboo

The final theme highlighted the demands placed on athletes to endure personal menstrual cycle challenges and performance barriers in isolation. It emphasized the pressure

on athletes to ensure performance outcomes were not affected by menstruation, often requiring them to conceal the physical and emotional impacts of their menstrual cycle and maintain a façade of resilience. The menstrual cycle was frequently dismissed as a valid reason to miss training, reinforcing the idea that athletes must "game-face" their discomfort.

Participants indicated that performance staff projected a lack of care around menstrual cycle struggles. Francis noted: “Personally, I think nobody (performance, coaching staff and players) really care about periods or how they impact us.” This lack of care was further emphasized by Charlie: “It’s taken me 10 years of international exposure to feel comfortable to say that I was struggling with my cycle, I know that others wouldn’t want to as they think the staff don’t want to know.” Although Katie implied that there has been a positive shift in the mentality around the menstrual cycle, specifically when approaching staff about the need of products: “I remember being embarrassed when I was younger, like when I needed to ask for a tampon, whereas now I bet on people having a spare and sharing. I don’t care, because I know that everyone shares the experience.”

Discussions with participants suggested that the sex of the individual significantly influenced whether an athlete decided to share their experience or seek advice. Participants who shared concerns of discomfort and lack of perceived care when discussing their menstrual cycle with someone often inferred that it was when discussing menstruation with the male sex. Francis noted: “I don’t think they (males) would say (negative comments) anything in particular, but I feel more comfortable talking to a female about it. I think it would be something they can then pass on if it concerns them.” Similarly, Georgia was hesitant to discuss their cycle with their male coaches, “our coach is a man with sons, no daughters, so you (the coach) just wouldn’t understand it. I would definitely feel more comfortable talking to a girl about it but I mean only if it got to the point of needing to.”

Francis expanded on their comment regarding hesitation to discuss their cycle with male staff; they implied a perceived stigma of the male coaches not understanding the players' experiences:

> I just think it's kind of the openness from the male coaches in particular. Like I'm sure if I went up to like the head coach or if the physios were to go up to them they would have a better understanding, especially because they believe that situation is important, whereas the male coaches obviously haven't had to try and perform whilst they're on the period. So I guess it's kind of that kind of stigma about them not quite understanding. (Francis)

However, some participants said that the gender of the directed conversationalist did not hinder them from expressing challenges, although they would manipulate the narrative to infer no connection to their cycle: “It’s not like it’s a gender thing but obviously our two coaches are males so I feel like I would go up to them and be like hey guys I’m on my period and feel this way, I would probably say I am feeling quite tired or like fatigued if I needed too (Jenny).”

Despite a reluctance to communicate with male support staff, the participants' choice of phrase when discussing menstrual cycle struggles indicated a preference for experiencing personal challenges in silence rather than sharing them. The phrases “only if I need to”, “if it got to the point of needing to, then I would” were not just used when conversing with the male support staff, but in some instances about the participants' cycles in isolation. The athletes were hesitant to discuss their personal experiences with any staff. In some scenarios, participants inferred a concern of not being taken seriously due to past players using their cycle as an excuse to avoid training: “Some folks that just mug it off and are like, especially when they just want to dip out of contact (Charlie).” This additional barrier further emphasized the challenges athletes face when navigating their menstrual cycle within a team

sport. Shaped by past experiences and observations of peers' actions, athletes expressed concern that even when experiencing genuine difficulties, their disclosures may not be taken seriously, particularly given perceptions that others have previously used their menstrual cycle as a justification to avoid aspects of training.

On the contrary, other participants stated that their hesitancy to discuss their menstrual challenges was influenced by their perception of not struggling as much as their teammates. Charlie mentioned: “I don't really want to talk about it or make a deal of it, because other people (players) are in this much pain also, so I must just get on with it (Charlie).” In some cases, the athletes considered themselves lucky with their symptoms: “I feel like I’m really lucky with my period, I don’t get it in the way some other girls experience it with like cramps and pain and that sort of thing, so I wouldn’t ever really say anything (Georgia).” The participants highlighted the challenging dynamic of a team sport when navigating taboo topics. Across scenarios, they identified teammates as a barrier to communicating menstrual cycle challenges with staff. They perceived their own struggles as less significant after observing their peers’ experiences, and this comparative process further inhibited disclosure, reinforcing a culture of silence surrounding the menstrual cycle within women’s rugby.

Overall, this theme highlighted how athletes' perceptions suppressed their willingness to open discussions with staff or peers. The participants illustrated a conscious, preconceived barrier to communication, reinforced by factors such as the sex of support staff, prioritization of team and performance outcomes, and social comparison with teammates, all of which contributed to the perception of menstrual cycle stigma.

Discussion

The key principles of this study were to explore menstrual cycle management practices currently employed within international women’s rugby programs to optimize

performance, examine the global perceptions of the menstrual cycle and how these perceptions may influence the management practices within women's rugby. Overall, this study highlighted a performance culture that prioritized training and match outcomes over player well-being, treating the athletes' menstrual cycles as a personal issue rather than a legitimate performance consideration. There was a lack of sustained or meaningful education, and the education that did exist was inconsistent and athlete-directed, placing the burden on players to advocate and manage for themselves.

Previous researchers have addressed the importance of understanding an athlete's individual needs and experiences regarding their menstrual cycle. Brown et al., (2020) and Brunivels et al., (2020) emphasized the need to understand the practices used by athletes to manage and cope with the physical and psychological symptoms that impact their training or performance. Despite rhetoric about player welfare and menstrual health initiatives, such as product provision and wellbeing forms, the participants often deemed these as superficial or performative. Some teams provided menstrual products, while others lacked basic supplies, causing anxiety for players. Financial constraints further compounded the issue, with athletes pointing out disparities between men's and women's resources.

Wellbeing/wellness forms were the most frequently used management strategy amongst the cohort, with every participant referring to having to complete one prior to training or game days. Although the specific content of the well-being questions lacked consistency across the sample, what was consistent was the participants being asked to report fatigue, post-exercise muscle soreness, menstrual cycle symptoms, and sleep levels. Characteristics such as fatigue, sleep quality, and general muscle soreness are referenced as vital branches of athlete readiness to monitor prior to training (World Rugby Passport, 2021). While some governing bodies, such as the RFU, have emphasized the need to address educational gaps regarding the menstrual cycle and researchers reinforce the need to monitor menstrual

519 symptoms throughout training, there has been no guidance or suggested inclusion of
520 menstrual-related questions by World Rugby (RFU, 2025; Temm et al., 2024). The absence of
521 direction helps explain the inconsistencies and variability in menstrual-related well-being
522 questions reported by the participants within this study and across different nations.
523 Although the inclusion of menstrual health and symptom tracking within the forms was
524 initially perceived as positive, the general athlete perspective regarding the forms was one of
525 just a 'tick box exercise'. Regardless of the information that the athletes were reporting, none
526 of the athletes had experienced a staff member engaging with them to discuss their wellness
527 scores. The participants emphasized the lack of adaptations to training sessions, even if they
528 were reporting having barely slept, eaten, and experiencing high levels of pain. As such,
529 reinforcing Koskenniemi (2023) and the players' perception that menstrual health is a
530 personal issue rather than a legitimate performance consideration. The narrative from
531 Koskenniemi's (2023) findings defend those seen within the current paper, specifically
532 regarding the constant need to self-monitor and problem solve, due to the lack of structural
533 support offered regarding the menstrual cycle. Consequently, it upholds the cultural injustice
534 and the current paper and perpetuates the idea that they should "just get on with it' and be
535 proactive themselves.
536 Clear, accessible, and consistent guidelines are needed to support management of the
537 menstrual cycle in sport, ensuring that practices like wellbeing forms genuinely support
538 athlete performance and wellbeing. Currently, as Carmichael et al., (2024) note, there is no
539 evidence-based guidance on adapting training loads based on well-being and menstrual cycle
540 data. They emphasize the need to for researchers to focus on identifying which variables
541 should be tracked to optimize athlete and health performance, but also identify the
542 appropriate lead implementor of such information. Due to a lack of regulatory framework and
543 monitoring, elite sport continues to lack meaningful performance and health adaptations.

Future work should build on Carmichael et al., (2024) concepts, using Brunivels et al., (2020) and Roffler et al., (2024) tracking tools, while incorporating the population-specific experiences highlighted by Findlay et al., (2020), Owen et al., (2025), and the present study.

In order to generate meaningful change to support female athletes, it is first necessary to understand the perspectives of performance and medical staff within women's rugby. Their insights can reveal the underlying tensions between performance demands and athlete welfare (Saynor et al, 2024). Building on this understanding, further steps could then be taken to design industry-informed frameworks shaped by the key stakeholders within the elite women's rugby environment. Such guidelines would make well-being monitoring more effective and impactful, ultimately enhancing athlete performance, health, and quality of life.

Similar to Owen et al., (2025), the current study emphasizes athletes' reluctance to share menstrual-related concerns. While Owen et al., (2025) reported that concealment was primarily driven by worries about visible symptoms and menstrual leakage in front of spectators and other players, parallel behaviors were evident in the current study. The participants described downplaying their symptoms when comparing themselves to teammates perceived to be experiencing greater discomfort, which led to deliberate withholding of personal challenges to staff members. Collectively, these behaviors reinforce a culture of silence surrounding the menstrual cycle within sport, encouraging athletes to manage menstrual-related challenges privately.

Brown et al., (2020) and Findlay et al., (2020) emphasized the importance of creating a positive culture around the menstrual cycle to enhance communication between athletes and staff. The findings of this study highlight the crucial role of open communication and tangible support offered to athletes from staff to reduce the stigma surrounding menstruation in elite women's rugby. Although menstrual cycle communication between staff and player was challenged, there were clear outlying factors that influenced their occurrence. Specifically, the

athlete-staff relationship, the sex of the staff member, and the profession and perceived academic knowledge of the menstrual cycle and sex of the staff member. Strength and conditioning coaches, doctors, and female staff were most frequently identified as preferred points of contact; however, when a strong, trusting relationship existed, the professional role became less influential. This reflects findings from Findlay et al., (2020), which emphasized the inherent communication challenges between female athletes and male staff.

Similar patterns were reported in McHaffie et al., (2022), who examined narrative and communication challenges in elite women's football. Their findings indicated that approximately 50% of participants preferred discussing menstrual challenges with female staff, citing a perceived shared understanding of lived experience. However, both McHaffie et al., (2022) and the present study demonstrate that staff characteristics alone does not determine disclosure. Instead, relationship quality, trust, and perceived staff supportiveness emerged as the primary factors influencing athletes' willingness to discuss menstrual cycle concerns.

Existing literature provides partial explanations for athletes' avoidance of communication with male staff. Bergström et al., (2023) reported that athletes perceived some male performance coaches as disinterested or lacking understanding, with concerns that menstrual issues may be interpreted as weakness. However, the same study also found that some male coaches recognized the impact of the menstrual cycle and were receptive to discussion, highlighting variability in staff attitudes. These findings emphasize the need to engage both athletes and staff, particularly male coaches, in menstrual health education, to dispel misconceptions and foster a supportive environment. Athletes' perceptions of staff disinterest were often linked to limited staff engagement in educational workshops and minimal follow-up on wellness monitoring tools, which were primarily athlete-focused (Carson et al., 2022). Consequently, menstrual health education remained inconsistent and

athlete-led, limiting opportunities for systemic change (Laske et al., 2022). While previous researchers have proposed explanations for communication behaviors, evidence remains inconsistent and has largely focused on staff-to-staff communication, rather than athlete-led disclosure, a gap addressed by the present study.

Participants described their experiences as women in a male-dominated, physically demanding sport using negative and often disempowering language. Many expressed feelings of being undervalued and unsupported, particularly in how they were perceived and treated by staff. Some players referred to themselves as "peasants at the bottom" and spoke of the ongoing pressure to perform, regardless of their physical or emotional condition. This pressure was exacerbated by the lack of normalization and open discussion surrounding the menstrual cycle and other gender-specific challenges, both among staff and within the wider athlete community.

This study was the first to examine and explore menstrual cycle practices in women's rugby union. It highlighted the regular use of wellness forms to assess athlete readiness for training and performance, alongside the presence of some menstrual-related education. Importantly, the study revealed inconsistencies in how the top teams worldwide manage and implement practices related to the menstrual cycle. The diverse perspectives, experiences, and practices observed across the eight international teams underscore the need for standardized interventions to enhance athlete experience while ensuring consistency across all nations, regardless of level, financial, or personnel restrictions.

This research uniquely prioritizes athlete-centered outcomes, using targeted questions to capture players' perspectives on what they need to perform optimally around their menstrual cycle and how they believe cultural attitudes could be improved. From athletes' perspectives, current approaches appear flawed and staff engagement insufficient, revealing a biased picture of management and governance success. Future researchers should therefore

examine menstrual management from medical and performance staff perspectives, as global initiatives risk failing without context-specific development, delivery, and assessment.

This study revealed that menstrual health management in elite women's rugby is inadequate, with current practices often superficial and inconsistently applied. While wellness forms and monitoring tools are used, athletes report limited engagement from staff and minimal support for their menstrual health and concerns. Menstrual health remains framed as an athlete's responsibility within women's rugby; there remains a lack of structured ownership for menstrual health management and support from staff, reflecting the wider cultural and institutional shortcomings. Addressing this requires evidence-based, sport-specific guidelines that integrate menstrual tracking into training and athlete monitoring. Equally important is understanding the perceptions of medical and performance staff, alongside comprehensive education practices, to create a more informed, supportive, and inclusive performance environment. This study highlighted the imperative implementation of athlete-focused, evidence-based guidelines and thorough staff training to ensure a truly supportive, informed, and inclusive performance environment.

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