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## Barriers and facilitators to participation in women's and girls' rugby: A mixed-methods study

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### ABSTRACT

The aim of this study was to identify the perceived barriers and facilitators to participating in the elite women's rugby pathway in England. An explanatory sequential mixed-method design was adopted comprising a survey and interviews. In total, 1,349 participants completed the survey. Quantitative survey data were analysed using descriptive statistics and Wilson-corrected frequency intervals. Subsequently, interviews were conducted with 46 survey respondents. Qualitative data were analysed using the coding stages recommended by Miles and colleagues (2019). Findings indicate that key facilitators included social support from parents, friends, and support staff within rugby, as well as participants' enjoyment of the game, underpinned by the inclusivity of the sport, all of which contributed to both initial and continued participation. In contrast, barriers included stereotypes associated with the sport, time constraints, limited access at school, and challenges surrounding access to rugby opportunities linked with geographical location and education. The findings underline the complex and interrelated nature of these factors, which varied substantially depending on one's age, level of playing environment, and geographical location.

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## Introduction


Rugby union has been historically perceived as a masculine sport (Furse, 2021). Despite this, women's rugby was reported as one of the fastest-growing team sports globally in 2018 (World Rugby, 2018), with recent figures reporting a 53.2% increase in female<sup>1</sup> players in 2024 and pre-teen girls comprising almost a quarter of this growth (World Rugby, 2018, 2023, 2024). This growth in participation has been simultaneously matched by the increased spectatorship, commercial, and partner interest in women's rugby (Women's Sport Trust, 2024). Consequently, rugby governing bodies are seeking to capitalise on this increase in participation and develop World class performance pathways. For instance, the Rugby Football Union (RFU), the governing body for rugby in England, has committed to a six-year strategy to boost female participation from 40,000 players in 2021 to 100,000 by 2027, setting targets for both their male and female teams to consistently rank top 2 in the World (Rugby Football Union, 2022).

However, despite the increase in popularity of women's rugby, female players still represent less than

a quarter of total players, with the sport remaining male dominated not only in participation rates, but in the associated governance and leadership roles within the sport (World Rugby, 2023). This disparity mirrors broader challenges faced by females in sports, where access to facilities, representation in coaching and administrative roles, and the prevalence of stereotypes and sexism limit opportunities for women's rugby players and female athlete's generally (Carle & Nauright, 1999; Clargo & Skey, 2025; Coen et al., 2024). As Dane et al. (2024) explained, women's rugby players find themselves as 'space invaders in a masculinist culture and institution' (p.6), facing challenges such as inequitable playing conditions and having to constantly navigate the social, cultural, and organisational norms in order to play (Dane et al., 2023). Such challenges or barriers are typically further enhanced when considered alongside other social categories such as race, sexuality, and disability (Darcy et al., 2017; Spaaij et al., 2015).

Despite calls to increase research that focuses solely on female athletes and to understand female participation across various sports and disciplines (Fraser &

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Kochanek, 2023), there is still much that needs to be done. For instance, interdisciplinary research in women's rugby union is limited, which prevents a full and thorough understanding of the experiences of females participating in the sport. Furthermore, there is sparse research considering the developmental pathways in rugby, or where research has been conducted it has typically been with small samples and not considered representation from across the age groups (i.e., from youth through to adulthood; Baker et al., 2020; Peters et al., 2022). If rugby unions are to increase the number of females playing in rugby and, subsequently, engaging in high levels of the sport, there is a need to identify the diverse and multilayered barriers and enablers to rugby participation from the perspective of players from varying levels and ages. To this end, the current study aimed to explore the factors influencing the participation of women's and girls' rugby players, with a specific focus on the elite women's pathway in England. Specifically, the study sought to answer the following research questions: 1) What are the perceived facilitators to accessing and continuing participation in the women's rugby pathway in England? 2) What are the perceived barriers to accessing and continuing participation in the women's rugby pathway in England? 3) Why are different factors perceived as facilitators or barriers to access and participation in the women's pathway? Within the current study, the England Women's pathway (EWP) was considered from the Under 16 Developing Player Pathway<sup>2</sup> to the National Team ('Red Roses').

## Method

### Study design

A mixed-methods study design was used. Specifically, aligned with Creswell (2015), an explanatory sequential design was adopted, with the quantitative phase occurring first followed by the qualitative phase seeking to explain the first phase results (Creswell & Plano Clark, 2018). Despite the quantitative methods occurring first, the emphasis of the study was placed equally on both methods, with the qualitative data providing rich descriptions of participants' experiences, helping to refine, explain, and elaborate the initial quantitative results (Creswell & Plano Clark, 2018).

### Phase 1: Quantitative phase

#### Procedure

Following receipt of institutional ethics approval, the lead author created an online questionnaire using SurveyMonkey (version 138, Momentive Software

Company, California, USA). The original survey was developed based on a thorough review of literature pertaining to women's sport. This survey was then reviewed by key stakeholders, including elite coaches, team managers, psychologists, and pathway staff with extensive experience in women's rugby, as well as academics with an involvement in women's rugby or women's sport generally. Survey topics and questions were added or amended in response to stakeholder feedback, and the final survey was piloted with these stakeholders prior to distribution.

### Participant recruitment

Participant recruitment occurred through purposeful sampling of players participating within the EWP.<sup>3</sup> The survey and accompanying information sheet were distributed in an email through the appropriate persons within the RFU (i.e., team operation managers, logistics managers) to players (or parents for those under the age of 16 years) who fulfilled the sampling criteria (i.e., were part of the women's pathway in England). Thus, the survey was open to all players within the EWP to complete should they wish. Additionally, the lead researcher attended U18 and U20 Women's England training camps, as well as 5 Premiership Women's Rugby clubs, to share information about the study.

Informed consent was obtained through the survey platform prior to participation. All respondents were required to read the participant information sheet and complete an embedded consent form before accessing the survey questions. For participants under 16 years, parental consent and participant assent were obtained through a separate section of the survey. Specifically, participants could not progress into the survey without consent first being provided by a parent or guardian.

Overall, the survey was distributed to approximately 2,100 players (exact figures are unknown due to changes in storage systems and accuracy of email addresses) with 1,349 players ( $M$  age = 17, range = 14–35 years) completing at least 20% of the survey, of which 67% (901) participants completed all questions (see Table 1 for further details). Responses are thus reflective of the total number of participants who responded to a specific question.

### Data collection

The survey began with demographic and sport-specific questions (i.e., years playing, level of play), followed by eight sections, comprising potential barriers or facilitators to participation. The eight sections were: 1) sport and personal background (e.g., rugby involvement, ethnicity, social class, school attended), 2) logistics, 3) club and support staff, 4)

**Table 1.** Number (%) of participants from each playing level, ethnicity, location, and mean ( $\pm$ SD) age (years)\*number (%).

Characteristic	Category	Total n = 1349
Playing level*	Premiership Women's Rugby	157 (12%)
	England Under 20's	31 (2%)
	England Under 18's	20 (2%)
	Centre of Excellence (CoE; Under 18)	222 (16%)
	Developing player pathway (DPP; Under 16)	919 (68%)
Ethnicity*	White British/Irish	923 (91%)
	Asian/Asian British	9 (1%)
	Mixed White/Black British African	13 (1%)
	Mixed White/Asian	8 (1%)
	Mixed White/Black Caribbean	18 (2%)
	Mixed other	16 (2%)
	Black British	13 (1%)
	Black British/African	3 (.3%)
	Black British/Caribbean	8 (.8%)
	Other ethnicity	3 (.3%)
Location*	North England	239 (23.4%)
	Midlands	277 (27.1%)
	London and Southeast	130 (12.7%)
	South West England	376 (36.8%)

pathway (e.g., understanding and accessibility of the pathway), 5) psychological characteristics, 6) perceptions of rugby, 7) relationships with others, and 8) physical characteristics. Participants were asked to indicate the extent to which each factor made their participation in the rugby performance pathway easier or harder. Responses were recorded on a seven-point Likert scale ranging from 1) much harder to 7) much easier. An open-ended text box was available at the end of each section for further comment (the full survey is available from the first author).

### Data analysis

The survey was analysed through IBM SPSS (version 29.0, IBM Corp, Armonk, NY.) Descriptive statistics from the 7-point Likert scale were used to provide initial insights and indicate areas of interest to inform specific interview guides with participants. However, to assess the positive, negative, or neutral outcomes, which were conceptually fundamental to the study, the 7-point Likert scale was collapsed to 3 grouped categories; 1 harder (*much harder, harder, slightly harder*), 2 (*hasn't made it easier or harder*), and 3 easier (*much easier, easier, slightly easier*). For the descriptive analysis of categorical variables, proportions are presented alongside their 95% confidence intervals, calculated using the Wilson score method with continuity correction. This approach provides accurate and reliable interval estimates for binomial proportions by incorporating the uncertainty associated with sample variability in a principled manner (Brown et al., 2001). Confidence intervals were computed using the `binom.confint` function from the `binom` package in

R (version 4.4.3), within RStudio (version 2024.12.1) (Dorai-Raj, 2014). Data are presented as the number of participants (percentage of that category of participants) unless otherwise stated.

## Phase 2

### Participants

At the end of the survey, participants provided contact details to participate in follow-up interviews to gain detailed understanding of notable factors identified in phase 1. Individuals who provided their details were contacted via email to arrange an interview and provided verbal consent to participate in the interview. In total, 46 participants across all stages of the pathway completed an interview; 10 DPP; 9 CoE; 8 England Under18s; 12 England Under20s; and 6 PWR players.

### Data collection

Data were collected through online semi-structured interviews. The interviews were  $41.89 \pm 10.38$  minutes (Mean  $\pm$  SD), ranging from 23.33 to 64.17 min. Interviews were recorded and auto transcribed, and subsequently checked for accuracy. Each interview started with general introductory questions to develop rapport (i.e., how long have you been playing rugby?). Following this, the interview focused on participants' perceptions of what had enabled or hindered their participation in the pathway, tailored to their individual survey responses. Specifically, participants were asked to explore how and why different factors had influenced their participation. They were also asked to comment on the overall findings, especially where differences were apparent between their responses and others.

## Data analysis

Qualitative data were analysed through three stages of coding (Miles et al., 2019). Initially, descriptive codes were developed based on phase 1 findings, focusing on unexpected or interesting results that guided the phase 2 analysis. For example, descriptive codes like 'fun' were used to identify raw data themes. Next, interpretive codes were developed which grouped these into broader concepts, such as linking 'fun' to 'enjoyment of rugby'. Finally, pattern codes, which highlighted relationships between interpretive codes, like 'a sense of belonging' were developed. These were then mapped against the phase 1 data (see Figure 1).

## Integration

Initial descriptive statistics from phase 1 directly informed the development of the phase 2 interview guides. By highlighting trends in participants' responses, these statistics shaped a more focused exploration of key factors during the interviews and facilitated a deeper understanding of the reasons behind participants' responses. This integrated and iterative process ensured that findings were more thoroughly explained and contextualised.

## Results

The results are presented in 8 separate sections aligned with the phase 1 survey headings, integrating both

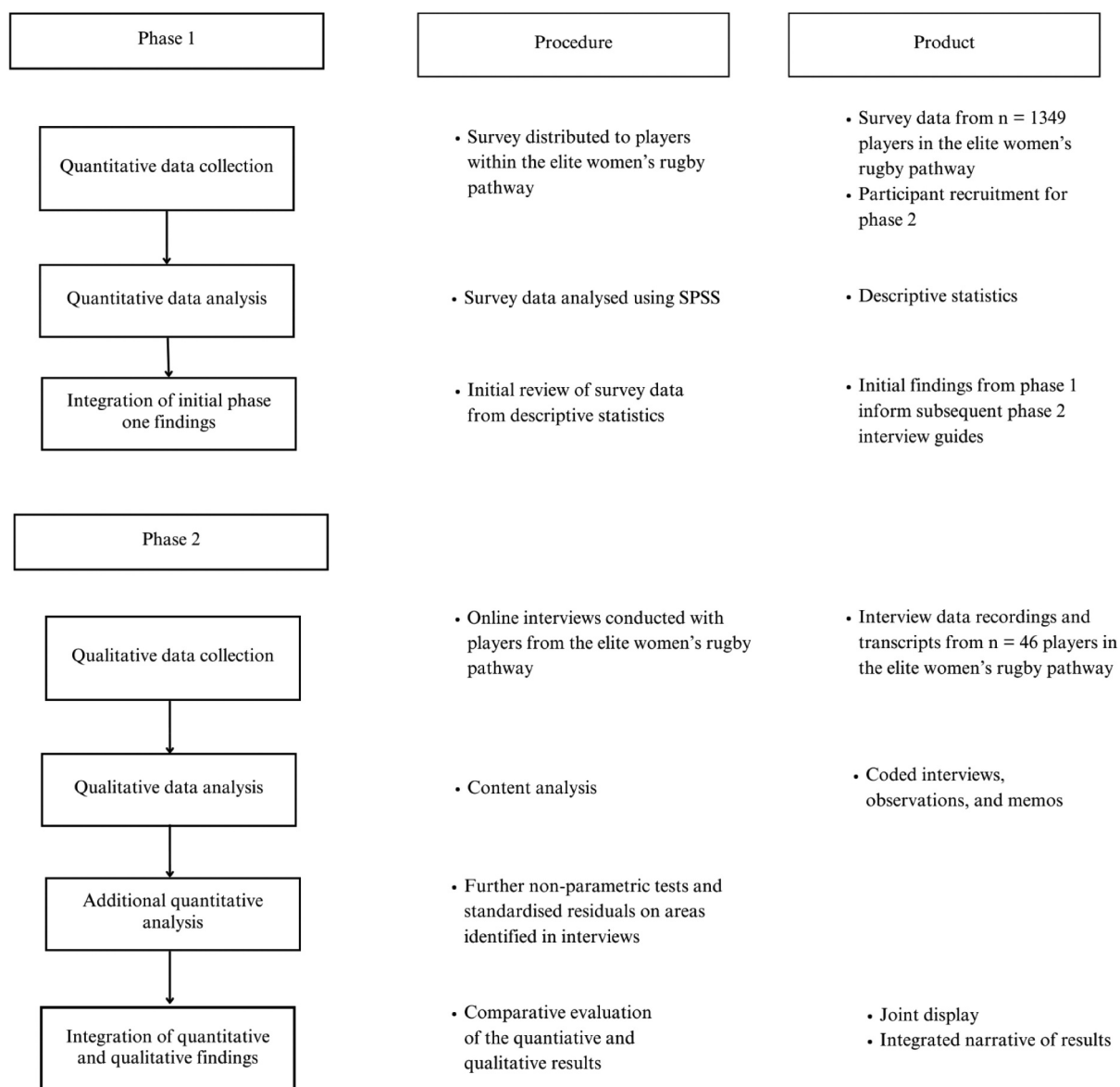


Figure 1. Study design: explanatory sequential mixed methods.



quantitative and qualitative results within. Particular attention was given to factors that were perceived to make participation easier (i.e., facilitators) or harder (i.e., barriers).

### *Sport and personal background*

Overall, there were seven factors within this section, of these factors two were perceived by participants as making participation harder, two were perceived by participants as making participation easier, and three were perceived by participants as making participation neither easier or harder (see Table 2).

When considering those elements that made it harder to participate, more than half of the participants indicated that the type of school attended (50%) and whether they played rugby at school (54%) as influential. Exploring these factors within the interviews, it was apparent that participants perceived that rugby was more likely to be present and available to girls at certain types of schools (e.g., in rugby-centric locations or those with rugby playing colleges) and the availability (or lack thereof) within some schools influenced whether girls would even consider playing rugby or were delayed in starting. For instance, Participant 9 shared, 'you didn't play rugby at school, as much as I wanted to try it'. Without having access to rugby at school, participants recognised that girls were not having a chance to try the sport with friends and in comfortable environments, as Participant 27 explained: 'if you have more girls who are interested in playing ... that'll help those girls be like, "Oh, you know, there's other people that are learning, so I can go along and learn."'

If schools did not provide opportunities to play rugby, participants either played other sports, which 42.2% as participants perceived as making their participation easier due to the transferable skills these sports

provided, or they were reliant on finding external clubs to start and continue their rugby journey. Given this reliance on external clubs, it is perhaps not surprising that 'where you live relative to rugby opportunities' was identified as a factor that made participation easier for some (45.4%) but harder (34.2%) for others. In exploring this through the interviews, it was apparent that age, geographical location, and level of rugby affected these responses. For instance, Participant 9 explained that in the North of England there are fewer opportunities (particularly for those seeking higher level training and competition) compared to southern parts of the country, and thus living in the North she felt was a barrier: 'If I didn't live up here [in the North], I'd live down there because ... there's just nothing here like there's no prem teams ... club doesn't supply enough like training to what I need'. The lack of local, high-quality training and teams subsequently lead to participants travelling long distances to clubs to access better opportunities. This further affected the quality of local competition, reducing the frequency of local fixtures, and impacting upon enjoyment. As participant 10 explained, 'we haven't had as much games this season at all because there's no people to go against. ... we're having to go further away to find games but it's just not fun having to travel'.

### *Logistics of playing*

In total, six factors were considered within this heading, with two being perceived as making participation easier, and three being perceived as making it neither easier or harder. For one factor, the observed frequencies from both the harder and neither categories were more than expected (see Table 3).

The time required for rugby was a factor that was perceived as making rugby participation harder (48%). Related to the previous section, individual's location in

**Table 2.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the sport and personal background section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , % [95% CI]	Total <i>n</i>
Where you live relative to rugby opportunities	466 (45.4%) [42.4% – 48.5%]	209 (20.4%) [18% – 22.9%]	351 (34.2%) [31.4% – 37.2%]	1026
The type of school you went to	213 (21.3%) [18.9% – 24%]	288 (28.9%) [26.1% – 31.7%]	497 (49.8%) [46.7% – 52.9%]	998
Playing rugby at school	220 (27.5%) [24.5% – 30.7%]	150 (18.7%) [16.2% – 21.6%]	431 (53.8%) [50.3% – 57.2%]	801
Playing other sports	399 (43.2%) [40% – 46.4%]	342 (37%) [34% – 40.2%]	183 (19.8%) [17.4% – 22.5%]	924
Your ethnicity/race	124 (15.4%) [13.1% – 18.1%]	657 (81.8%) [79% – 84.3%]	22 (2.7%) [1.8% – 4.1%]	803
Your culture	169 (21.1%) [18.4% – 24.1%]	605 (75.6%) [72.5% – 78.5%]	26 (3.2%) [2.2% – 4.7%]	800
Class (ie working class, middle class, upper class)	260 (29.1%) [26.2% – 32.1%]	483 (54%) [50.7% – 57.2%]	152 (17%) [14.7% – 19.6%]	895

**Table 3.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the logistics section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
The time required for rugby	113 (11.1%) [9.3% – 13.2%]	421 (41.3%) [38.3% – 44.4%]	485 (47.6%) [44.5% – 50.7%]	1019
The cost of playing rugby	122 (12.1%) [10.2% – 14.3%]	541 (53.7%) [50.6% – 56.7%]	345 (34.2%) [31.4% – 37.2%]	1008
Playing rugby with girls	488 (48.6%) [45.5% – 51.7%]	327 (32.6%) [29.7% – 35.5%]	189 (18.8%) [16.5% – 21.4%]	1004
Playing rugby with boys	147 (22.8%) [19.7% – 26.1%]	287 (44.4%) [40.6% – 48.3%]	212 (32.8%) [29.3% – 36.5%]	646
The age you started playing rugby	435 (43%) [40% – 46.1%]	256 (25.3%) [22.7% – 28.1%]	321 (31.7%) [28.9% – 34.7%]	1012
Your rugby kit/clothing	175 (17.6%) [15.3% – 20.1%]	613 (61.6%) [58.5% – 64.6%]	207 (20.8%) [18.4% – 23.4%]	995

proximity to adequate playing opportunities often resulted in increased travel demands, and thus time demands, particularly as participants improved.: 'the closest clubs was the boys club, which was half an hour away ... then I started to commute to like an hour minimum ... suddenly nothing's near you. It's like we travel to camp it's like 3 hours every time no matter where we go' (participant 1). Additional logistical issues were further apparent for those who were located further away from clubs, as Participant 9 explained: 'unless you join Uni there's not a lot of opportunity to play and one of the girls that has gone to [club] with me ... she can't get to training because she can't drive'.

The time demands were also expressed as a challenge for those who were playing at an elite level, as explained by Participant 1: 'the full-time expectation. So we're in [club] 3 days a week, a game another day a week ... it's physically mentally draining'. This was particularly an issue because participants were often working alongside training and, consequently, struggled with the full-time expectation. Participant 1 described: 'it's just difficult because the expectation of having that high performance and not being able to recover because you can't afford to recover'. The time burden experienced by those in certain locations and playing environments may explain why 41.3% of participants felt that time neither facilitated nor hindered their participation. These respondents likely did not face the increased travel or competition demands experienced by those who competed nationally or at university who perceived the time required for rugby as making their participation harder.

Meanwhile, having access to opportunities to play rugby with other girls (i.e., not only having access through boys teams) was seen as a factor that contributed to making participation easier for many (49%). When discussing this, participants suggested this may be due to the social benefits of playing with girls and the opportunity to start playing rugby with others at a similar skill level: 'I think it was just kind of like

everyone was on a level playing field ... if you go into an environment where you're like the only girl and it's all boys it's quite intimidating' (participant 5). The age one started playing rugby was also ranked by more participants as making participation easier (43%) compared to those who ranked this factor as making it harder. Participants discussed the complex interaction between the perceived benefits of starting earlier but having to play with boys if they wanted to play from an early age due to the lack of girl's teams. Interestingly, of the total respondents, 46% ( $n = 522$ ) first started playing rugby in mixed or boys only teams while 54% ( $n = 612$ ) first played in girls only teams. Thus, perceptions of playing with boys or girls varied among participants, with participants discussing different reasons for playing with both sexes:

Pros of the boys were it was a lot more competitive ... it was a lot better rugby to be able to play with and there was a lot better environment ... with girls rugby ... it allowed me to make friends and open up my social group and it allowed me to become more confident in my abilities. (participant 6)

### Club and support staff

There were 10 factors covered within this section. In phase 1, eight factors were identified by participants as making their participation easier, while two factors were perceived to have made participation harder (see Table 4).

In considering the factors perceived to be facilitators to participation, it was consistently identified by participants that the quality of support staff (e.g., coaches (58.1%), strength and conditioning coaches (42.7%), and medics (48.3%)) was particularly important because of the various forms of support they provided. Specifically, it was apparent that coaches who were perceived to make participation easier possessed high levels of rugby-specific knowledge but also sought to understand players as people and ensured they

**Table 4.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the club and support staff section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
Availability and/or quality of coaches	598 (58.1%) [55.1% – 61.1%]	136 (13.2%) [11.3% – 15.4%]	295 (28.7%) [26% – 31.5%]	1029
Availability and/or quality of strength and conditioning coaches	386 (42.7%) [39.5% – 45.9%]	173 (19.1%) [16.7% – 21.8%]	345 (38.2%) [35.1% – 41.4%]	904
Availability and/or quality of a first aider/medical practitioners	480 (48.3%) [45.2% – 51.4%]	301 (30.3%) [27.5% – 33.2%]	212 (21.3%) [18.9% – 24%]	993
Availability and/or quality of a physiotherapist	420 (46.2%) [42.9% – 49.4%]	222 (24.4%) [21.7% – 27.3%]	268 (29.5%) [26.6% – 32.5%]	910
Availability and/or quality of nutritionist	146 (20.7%) [17.9% – 23.9%]	261 (37.1%) [33.6% – 40.7%]	297 (42.2%) [38.6% – 45.9%]	704
Availability and/or quality of psychologist	112 (17.4%) [14.7% – 20.5%]	256 (39.8%) [36.1% – 43.6%]	275 (42.8%) [39% – 46.6%]	643
Availability of training and match facilities	528 (51.5%) [48.5% – 54.6%]	185 (18%) [15.8% – 20.5%]	312 (30.4%) [27.7% – 33.3%]	1025
Quality of training and match facilities	580 (56.5%) [53.5% – 59.5%]	177 (17.3%) [15.1% – 19.7%]	269 (26.2%) [23.6% – 29%]	1026
Training frequency and quality	552 (53.9%) [50.8% – 56.9%]	196 (19.1%) [16.8% – 21.6%]	277 (27%) [24.4% – 29.8%]	1025
Competition frequency and quality	477 (46.7%) [43.6% – 49.7%]	200 (19.6%) [17.3% – 22.1%]	345 (33.8%) [30.9% – 36.7%]	1022

provided emotional support as required: 'any of the girls whose parents weren't there he'd ... make sure they knew things were going on and just kind of kind of yeah wrap his arm around us a bit more' (participant 14). Similarly, this provision of emotional support and ensuring they knew them as people, not just players, was also highlighted as valuable from other support staff, as Participant 31 describes:

knowing that I have the accessibility of physios and first aiders is definitely important, because it reminds me that, like even when I'm injured and stuff, there's gonna be people there that can like support me outside of just the rugby skills, so like my actual physical well-being.

Of note, access to a nutritionist (42.2%) and psychologist (42.8%) was consistently identified as making participation harder because participants perceived that it would be beneficial but in almost all situations indicated they had no access or very limited access to this support. However, in interviews a complex picture emerged regarding access to, and quality of, support staff. For instance, it was apparent that once participants entered the pathway or started rugby programmes at college, they generally started to gain access to staff and support that was perceived to be high quality and this was beneficial. However, this was not always the case at their local clubs, as Participant 11 explained: 'at club ... we'd like never have a physio, or it would be like someone's parent ... but like at college it's like completely different like we have a physio, an S&C and loads and loads of facilities, which makes it loads easier'. Similarly, the quality of coaches at local clubs was seen as variable. Particularly, those participants who were more experienced or were accessing high-quality coaching in the pathway voiced some frustrations regarding

community coaches. Participant 44 explained: 'you've got people who have already been playing Rugby for a year sat there twiddling their thumbs because they know what to do'. She continued to explain the impact of this: 'people begin to lose interest in the game you know because they are not being pushed enough'. Thus, it was apparent that simply having access to a coach was not as important as the quality and skills they possess.

As well as access to support staff, participants ranked the quality and frequency of training (53.9%), competition (46.7%), and the quality (56.5%) and availability of facilities (51.5%) as making participation easier. In exploring these through interviews, overall, it was clear that if participants had access to high-quality facilities, and consistent and appropriate training and competition, they perceived it facilitated their engagement. However, it was clear that one's access to, and quality of, facilities and competition varied. As Participant 1 summarised, at her local club 'we didn't even get a spot on the pitch booked for us' which made participation much harder compared to her current experience at a senior PWR club where they 'have the pitch just maintained for you so you can play all year round'. Linked to the earlier discussed issues of geographical location, it was apparent that access to adequate competition varied among participants depending on where they lived and how they tried to access rugby. For many, it appeared that attending a college or university that provided consistent and high-quality rugby opportunities was particularly beneficial when compared to their local club, as Participant 5 explained:



Game time back home is few and far between like it's- you'll have like, maybe a game a month, if you're lucky ... but like at college, it's like a game every like 2 weeks ... for girls who stay back at club, you don't get as much time to progress ... the reason why I like I moved to a college was just to get more time to like understand the game ... you can see the difference between when I had like a load of game time.

However, these opportunities often required players to relocate and were also exclusive to those who could afford, or had the academic abilities, to attend, posing further challenges.

### Relationships with others

In total, there were nine factors covered within this section, with six factors being perceived by participants as making their participation easier, two being perceived as making it neither easier or harder, and one factor perceived to have made participation harder (see Table 5).

In both phases of data collection, the factor most frequently reported as making participation easier was parent support (90%). Participants cited the various forms of financial, emotional, and coaching support received from parents throughout their rugby journey which enabled them to start and continue playing. Summarising the feelings of many, Participant 13 shared:

all of my bigger achievements has been my mum behind the corner somewhere doing something ... my entire rugby career ... is all thanks thankful for her, because you know who else is going to drive me here, there, and everywhere ... I would not be playing rugby without that.

Participants particularly perceived that parents made their participation easier if they had a personal interest in rugby (77%) and interest in sport generally (80%), which directly influenced their initial rugby involvement, as explained by Participant 5: 'rugby was always on ... it was always kind of like at some point you're going to start playing rugby'. Meanwhile, Participant 27 shared: 'my dad used to play rugby so he was just willing to take me anywhere' while reflecting that for her friends who did not play: 'most of the time it was like their parents didn't want them to or they had no club near them that their parents were willing to take them'. Considering the importance of parents in facilitating rugby involvement, it is perhaps unsurprising that 38.1% of participants perceived their parents' occupation and work pattern as making their participation harder, particularly from the perspective of youth participants' reliant on parents transporting them.

As well as parents, participants often reported in the interviews that their siblings made their participation easier. Of note, in phase 1, 93% of participants reported having 1 or more siblings and 42% of participants ranked

**Table 5.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the relationships with others section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
Your parents' occupation and work pattern (ie if full time work, part-time etc impacts)	309 (30.7%) [28.4% – 33.7%]	313 (31.1%) [28.4% – 34.1%]	383 (38.1%) [35.2% – 41.2%]	1005
Your parents' marital status (married, divorced etc)	321 (34%) [31.1% – 37.1%]	494 (52.3%) [49.1% – 55.5%]	129 (13.7%) [11.6% – 16%]	944
Your parents' personal interest in rugby	778 (76.6%) [73.9% – 79.1%]	154 (15.2%) [13.1% – 17.5%]	84 (8.3%) [6.7% – 10.1%]	1016
Your parents' personal interest in sport	809 (80%) [77.4% – 82.4%]	149 (14.7%) [12.7% – 17.1%]	53 (5.2%) [4% – 6.8%]	1011
Having siblings	399 (41.6%) [38.5% – 44.7%]	283 (29.5%) [26.7% – 32.4%]	278 (29%) [26.2% – 31.9%]	960
Support from your parents for your rugby participation	920 (90%) [88% – 91.7%]	56 (5.5%) [4.2% – 7%]	46 (4.5%) [3.4% – 6%]	1022
Pressure from your parents regarding your rugby participation	266 (30%) [27.1% – 33.1%]	433 (48.9%) [45.6% – 52.2%]	187 (21.1%) [18.5% – 23.9%]	886
Your friends/peers playing rugby	715 (72.3%) [69.4% – 75%]	200 (20.2%) [17.8% – 22.8%]	74 (7.5%) [6% – 9.3%]	989
Your friends/peers understanding rugby	612 (61.6%) [58.6% – 64.6%]	252 (25.4%) [22.8% – 28.2%]	129 (13%) [11% – 15.2%]	993

having a sibling as making their participation easier. In interviews, participants often attributed their initial and ongoing involvement and development as being influenced by their sibling(s). Participant 5 discussed: ‘my dad, my brother, taught me how to kick, taught me how to pass ... and they’re like “right, this is what you need to be doing better”’

Beyond family support, the importance of friends who played (72%) and understood rugby (62%) were also frequently reported in phase 1 to have made participation easier. Expanding on this in the interviews, participants explained that the community and social aspect of rugby facilitated participation, particularly the inclusive and welcoming atmosphere, as discussed by Participant 10: ‘there’s anybody here like whatever body shape, type, you can play ... you’ve kind of got your people that have your back and they do actually turn it in your family’.

### Perceptions of rugby

Of the seven factors covered within this section, two factors were identified by participants as making their participation easier, one factor was perceived by more participants as making their participation neither easier or harder, and one factor was perceived by more participants as making participation harder. For two factors, the observed frequencies for both the easier and neither categories were more than expected, and for one factor, the observed frequencies for both the neither and harder categories were more than expected (see Table 6).

More participants reported seeing rugby as a career (43%) and the visibility of female role models (63%) in rugby as making their participation easier. Participants explained that role models made them feel inspired to begin and continue participating, particularly if they felt

they could relate to them. As Participant 27 shared: ‘it’s so inspiring to watch someone who’s come from a similar background as you, done similar routes in life and you sort of look at them and go. “Oh, I can be like that”.’

Interestingly, more participants reported concerns about the dangers of playing rugby (63%) and risk of injury (50%) as neither making participation easier or harder. Both factors were discussed in more detail in interviews, with participants explaining that they were not concerned about the dangers of rugby or the risk of injury as they felt it was part of the game: ‘I’m always like weighing up the pros and cons of it [injury]. I’m always like, well, I love rugby so much that, like if my body is broken by the age of 30, I’m kind of all right with that’ (participant 5). Despite more participants reporting the risk of injury as neither making participation easier or harder and discussing simply accepting injury as a part of the game they loved, 45% of respondents did rank the risk of injury as making their participation harder. For those participants, it appeared that they were concerned about injuries that may interfere with their daily lives: ‘I don’t want to like get like a brain injury before my exam season ... my mum’s a doctor, and she’s pretty worried about me getting concussed and like and like getting dementia’ (participant 46) and perhaps had worries of others (i.e., parents) shared with them.

58% of participants reported stereotypes surrounding girls/women playing rugby as making their participation harder. For instance, participants discussed common stereotypes associated with women’s rugby (i.e., a perception that ‘oh they’re all lesbians’; participant 1) and explained the negative impact of this on players: ‘you just get a bit fed up of those kinds of things, but it can affect some people ... especially if they are not comfortable in their sexuality in that sense where they’re constantly being called gay’ (participant 9). Beyond sexuality,

**Table 6.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the perceptions of rugby section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn’t made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
Concerns about the dangers of playing rugby	62 (6.2%) [4.9% – 7.9%]	629 (63%) [59.9% – 65.9%]	308 (30.8%) [28% – 33.8%]	999
Risk of injury	49 (4.8%) [3.7% – 6.3%]	507 (49.9%) [46.8% – 53%]	460 (45.3%) [42.2% – 48.3%]	1016
Your perceptions of the rugby lifestyle (i.e., culture of rugby, banter)	424 (41.7%) [38.7% – 44.7%]	470 (46.2%) [43.2% – 49.3%]	123 (12.1%) [10.2% – 14.2%]	1017
Stereotypes surrounding girls/women playing rugby	61 (6%) [4.7% – 7.7%]	363 (35.8%) [32.9% – 38.8%]	590 (58.2%) [55.1% – 61.2%]	1014
Seeing rugby as a career	422 (42.7%) [39.7% – 45.8%]	274 (27.7%) [25% – 30.6%]	292 (29.6%) [26.8% – 32.5%]	988
Viewing participation in rugby as a hobby	425 (43.2%) [40.2% – 46.4%]	436 (44.4%) [41.3% – 47.5%]	122 (12.4%) [10.5% – 14.6%]	983
Visibility of female role models in rugby	642 (62.7%) [59.7% – 65.6%]	186 (18.2%) [15.9% – 20.6%]	196 (19.1%) [16.8% – 21.7%]	1024

the consistent comparison to the men's game and particularly peers perceiving the women's game to be inferior was challenging at all ages and stages and was also off-putting. As Participant 17 shared: 'the amount of grief I get off guys for playing rugby like in my year because they all think . . . that girls rugby it doesn't mean as much'.

### Pathway

In total, five factors were covered within this section. Of these factors, four were identified by participants as making their participation easier, while for one factor the observed frequencies for each category were similar to the expected frequencies (see Table 7).

Participants perceived the pathway as making their participation easier due to the overall understanding (55.5%) and accessibility (53.8%) of the pathway, as well as the progression opportunities (54%) afforded from being in the pathway, as Participant 44 described:

I loved it, like the accessibility to it just where it was for people you know if it wasn't too far away . . . having multiple of them around means that just so many girls get the opportunity to be able to do it.

However, it was also recognised that there were complexities around participants' pathway experience. Early positive involvements (i.e., aged 14–18 years) were often shared, followed by challenges when transitioning to senior rugby: 'once college is finished and they're deciding to not go to Uni they think, 'well what is the option for me now?' you know 'what can I do with Rugby?'" (participant 44). Closely related to this, participants once again reflected that geographical location played a role here, with the transition to senior rugby being perceived to be easier for those located closer to 'the right' universities or teams that would support their development:

It's a lot harder to access unless for some reason you're playing for the right uni . . . it cuts off a lot of access for a lot of girls because they're not necessarily looking to go to uni or they're not looking to be in that area at the right time (participant 9)

Participant 9 goes on to explain that for those who progress: 'it's not necessarily how you play or what you know it's who you know'.

**Table 7.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the pathway section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
Understanding of the pathway	561 (55.5%) [52.5% – 58.6%]	250 (24.8%) [22.2% – 27.5%]	199 (19.7%) [17.4% – 22.3%]	1010
Accessibility of the pathway	542 (53.8%) [50.7% – 56.8%]	194 (19.2%) [16.9% – 21.8%]	272 (27%) [24.3% – 29.8%]	1008
Age banding	361 (36%) [33% – 39%]	367 (36.6%) [33.6% – 39.6%]	276 (27.5%) [24.8% – 30.3%]	1004
Opportunities for progression within the pathway	544 (54%) [50.9% – 57.1%]	230 (22.8%) [20.4% – 25.5%]	233 (23.1%) [20.6% – 25.8%]	1007
Your preparedness for being in the pathway	499 (49.8%) [46.7% – 52.9%]	310 (30.9%) [28.2% – 33.9%]	193 (19.3%) [16.9% – 21.8%]	1002

**Table 8.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the personality and psychological characteristics section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
How good you think you are at rugby	501 (49.3%) [46.2% – 52.3%]	223 (21.9%) [19.5% – 24.6%]	293 (28.8%) [26.1% – 31.7%]	1017
How much fun you have playing rugby	909 (88.8%) [86.7% – 90.6%]	69 (6.7%) [5.4% – 8.4%]	46 (4.5%) [3.4% – 5.9%]	1024
Your body image/appearance	290 (28.7%) [26% – 31.5%]	328 (32.4%) [29.6% – 35.4%]	394 (38.9%) [36% – 42%]	1012
Your mental skills	466 (45.8%) [42.8% – 48.9%]	236 (23.2%) [20.7% – 25.9%]	315 (31%) [28.2% – 33.9%]	1017
Your personality	675 (66.1%) [63.2% – 68.9%]	209 (20.5%) [18.1% – 23.1%]	137 (13.4%) [11.5% – 15.6%]	1021
Your desire to win	803 (78.4%) [75.8% – 80.8%]	150 (14.6%) [12.6% – 16.9%]	71 (6.9%) [5.5% – 8.7%]	1024
Your desire for personal development	856 (83.7%) [81.3% – 85.8%]	102 (10%) [8.3% – 12%]	65 (6.4%) [5% – 8%]	1023
Your identity as a rugby player	697 (69%) [66.1% – 71.8%]	237 (23.5%) [21% – 26.2%]	76 (7.5%) [6.1% – 9.3%]	1010

### Personality and psychological characteristics

There were eight factors covered within this section. In total, seven were identified by participants as making their participation easier, while one factor was perceived to have made participation harder (see Table 8).

How much fun you have playing rugby (89%) was the second most frequently discussed facilitator to participation. Participants discussed extensive reasons for enjoying their participation, including the social side, inclusivity, and the physical nature of the game: 'I like how it's quite ... silly you can just like be free like ... you're just running around, and like rolling in the mud, and it's just very silly' (participant 46). The inclusivity of rugby was discussed by Participant 5: 'I think a lot of people are like "oh, okay, like I'll fit in there because they're all a bit weird like me" there's a place for you ... we have this weird position that like somehow everyone will fit into one of them'.. The fun experienced within rugby was directly compared with negative experiences within other sports, as Participant 46 explained: 'it's just different to other sports where it's ... more like serious ... it's just a lot more fun uhm and also like the girls that play it are all really nice and like way nicer than hockey'. This comparison of rugby to other sports was closely related to participants' perceptions of their body image/appearance, whereby 38.9% of the participants ranked this as making their participation harder. As Participant 5 explains, there was a complex interplay between the negative societal perceptions of one's body image/appearance with the inclusivity of all shapes and sizes experienced within rugby: 'it always kind of played on me a little bit, because I was like "I do not look like any of my friends" ... like small, petite ... I'm 10–20 kilos heavier than them ... then like coming into rugby environments ... everyone was like so different and everyone is so useful'.

As well as the inclusivity of the sport, several participants also cited improving and getting better as one of the reasons they enjoyed playing rugby. This aligns with the response from 84% of participants who ranked their desire for personal development as making their participation easier. Within the interviews, it was apparent that while such development may be associated with what they could gain from rugby, it also related to participants' perceptions of their own personality (66.1%), mental skills (45.8%), and identity (69%) which they felt they made their ability to participate easier. Participant 5 explained: 'I'm quite an obsessive person by nature' who suggested that their desire to develop and win, combined with their obsessive personality and mental skills, made it easier for them to participate and progress as a result: 'I'm like "Oh, okay you want me to learn how to pass, and learn how to kick". I will do it and I will just keep on ... I think that's like a massive part to what helped me get to where I am'.

### Physical characteristics

Of the seven factors covered within this section, two factors were identified by participants as making their participation easier, four factors were perceived to have neither made participation easier or harder, and one factor was perceived to have made participation harder (see Table 9).

In phase 1, more participants reported having access to support and education regarding injuries (55.1%) as making their participation easier which they attributed to the quality of support staff discussed in the club and support staff section. Closely related to this, more participants also reported their physical strength as making participation easier (61%). This physical strength appeared to be beneficial because:

**Table 9.** Frequencies, percentages, and 95% confidence intervals (Wilson continuity correction) from the physical characteristics section.

Likert factor	Easier <i>n</i> , (%) [95% CI]	Hasn't made it easier or harder <i>n</i> , (%) [95% CI]	Harder <i>n</i> , (%) [95% CI]	Total <i>n</i>
Your menstrual cycle	36 (3.6%) [2.6% – 4.9%]	378 (37.6%) [34.7% – 40.6%]	591 (58.8%) [55.7% – 61.8%]	1005
Having access to support and education regarding your menstrual cycle	214 (23.2%) [20.6% – 26%]	475 (51.4%) [48.2% – 54.6%]	235 (25.4%) [22.7% – 28.3%]	924
Having access to support and education regarding injuries	539 (55.1%) [52% – 58.2%]	243 (24.8%) [22.2% – 27.6%]	196 (20%) [17.7% – 22.7%]	978
Your weight	211 (21%) [18.6% – 23.6%]	488 (48.5%) [45.4% – 51.5%]	308 (30.6%) [27.8% – 33.5%]	1007
Your height	255 (25.4%) [22.8% – 28.2%]	515 (51.3%) [48.2% – 54.4%]	234 (23.3%) [20.8% – 26%]	1004
Your physical strength	618 (60.5%) [57.4% – 63.4%]	184 (18%) [15.8% – 20.5%]	220 (21.5%) [19.1% – 24.2%]	1022
Your body shape	349 (34.5%) [31.6% – 37.4%]	469 (46.3%) [43.2% – 49.4%]	195 (19.2%) [16.9% – 21.8%]	1013

'it makes me more confident in rugby because it's like I know that I can carry a ball because I know I've got leg drive because I can like do amazing things on leg press' (participant 6). Thus, it appeared that strength and the subsequent confidence that could be gained from it was particularly beneficial.

In contrast, more participants reported height (51%), weight (49%), and body shape (46%) as neither making participation easier or harder. In exploring this within interviews, participants explained that their shape or size did not impact upon whether or not they participated, however, as Participant 1 explained, these factors were perceived to be important factors for selection and progression at the elite levels: 'our Prem coach he told me last year he was like you're not getting selected because you're too small'.

Participants also reported that within rugby they felt accepted by teammates for physical qualities often not accepted in other sports or societally. Consequently, they explained that this created a sense of community, which became one of the reasons why they continued to play, with Participant 5 explaining: 'I think in no other sport would someone like me who is like 5 ft 3, I'm like built like a brick, feel like they're gonna be like not only accepted but also celebrated'.

59% of participants reported that their menstrual cycle made participation harder. Participants reported that this was due to the negative physical impact their menstrual cycle had on their ability to play, particularly for those with more severe symptoms: 'I had really really bad periods, so I'd be sick. I'd like faint . . . it was just me and my like issues that made it difficult for me to play' (participant 2). Further, participants perceived that the societal norms surrounding menstruation and feeling unable to explain their experience to coaches had been challenging:

You've got the shit cramps and you've got like period poos . . . it's so hard to play 80 min of full contact rugby. . . I had to explain to my coach, who's a guy, why I wouldn't be able to be there because I was in so much pain I couldn't move. (participant 6)

Despite this, 51% of participants reported that having access to support and education regarding your menstrual cycle made their participation neither easier or harder. As Participant 9 explains, this was due to participants wanting more meaningful cultural changes compared to the current educational offer:

It was just one presentation. I feel like it needs to be more support and more understanding on what your period is, why is your period happening . . . why can't we

talk about periods, like when you should be training, when you shouldn't be.

## Discussion

This study aimed to explore the barriers and facilitators to participation in the elite women's pathway (EWP) from the perspective of women's rugby players. Through a combination of survey data and interviews, the findings revealed the connection between positive social support and the welcoming and inclusive environment as key facilitators and reasons for initial and ongoing participation. However, the significance of these positive social experiences highlighted how negative social stereotypes can hinder engagement. These perceptions were combined with barriers to accessing rugby, such as geographical location and the lack of playing opportunities for those in particular areas, which were further compounded by disparities in educational rugby offerings and associated travel constraints.

### *Social and practical barriers to participation*

Exploring the barriers to participation, one of the elements that was emphasised across both phases was the impact of the stereotypes surrounding women's rugby. Participants expressed that they often encountered stereotypes reinforced through their experiences at school, from peers, and within their local community clubs. Specifically, participants experienced negative perceptions towards women's rugby and being a women's rugby player, including others viewing women's rugby as secondary to men's rugby and the questioning and mocking of players' sexuality. This corroborates previous research which has identified that females participating in traditionally masculine sports often encounter stereotypes regarding body image, sexuality, and sexist views towards the sport (Bevan et al., 2020; Hardy, 2016). Sadly, these issues clearly remain within women's rugby despite the significant growth in females playing traditionally masculine sports in the United Kingdom, as well as the considerable increase in spectatorship of these sports (Women's Sport Trust, 2024), and the ongoing success of the national team. Particularly, the fact that this was identified as a barrier by those who are actually participating suggests that it is possible that this is a factor that is preventing some from even trying out the sport. Thus, targeted efforts are still required to address the societal and cultural norms attached to these sports and the



associated prevailing perceptions of femininity (Krane, 2001).

Through integrating survey and interview data, it was identified that participants' geographical location had a substantial influence on their perceptions of barriers and facilitators. Particularly, those participants located in the North of the country perceived many barriers associated with a lack of access to local clubs, quality coaches, training and competition, professional teams, and rugby-supporting educational settings among others. Interviews further highlighted disparities in rugby access linked to education, with elite rugby-playing colleges and universities providing superior facilities, competitive games, and links to professional clubs, significantly enhancing participants' skills compared to those reliant on local clubs – a direct contrast to women's football within England whereby elite opportunities are provided through club academies for those aged 14–20 (England Football, 2024). This gap in access was exacerbated by location-based barriers, especially in Northern England, where rugby union opportunities were scarcer due to the dominance of rugby league in specific areas, a parallel with men's rugby, as well as the lack of overall financial investment experienced by Northern regions within England compared to the South (Webb et al., 2022). These barriers fundamentally contributed to additional challenges, particularly the time associated with rugby, as participants often needed to travel longer distances for opportunities, which consequently reduced time available for other activities (e.g., education, socialising) and recovery. Previous research has consistently indicated that female participation in sport is largely influenced by proximity, awareness, ease, and safety when accessing sporting activities (Eime et al., 2015; Hanlon et al., 2019; Hulteen et al., 2017; Rich et al., 2022), and thus these findings are perhaps unsurprising. However, they reveal the breadth and complexity of the issues which arise when rugby offerings are not easily accessible and highlight just how important it is to address within clubs and playing environments, as well as considerations for future research within women's sport.

The importance of addressing the issues above is confounded by the limited opportunities provided to play rugby in school. This lack of access for girls to participate in traditionally male sports and sport in general within educational settings has been known as an issue for many years (e.g., Ferry & Lund, 2016; McSharry, 2017; White et al., 2022) but it clearly still remains. For the participants in the current study, it was recognised that having the opportunity to play sport at school would have provided an opportunity to engage in rugby in a familiar place. Fortunately,

these players were still able to engage with rugby through other means (e.g., local clubs), usually due to their support networks. However, this is unlikely to be feasible for some girls and thus, what remains unknown, is how many girls who may potentially enjoy rugby never have an opportunity to engage because they cannot access it through school. Given the consistent reports of insufficient physical activity observed among adolescent girls (Guthold et al., 2020) and the fact that rugby is recognised both by the participants in the current study and other research as a sport that is inclusive for individuals with various body types, shapes, and strengths (Chu et al., 2003), it could be argued that policies and initiatives which introduce rugby in schools may provide an avenue for sport engagement for individuals who may not feel that they 'fit' in traditional female sports.

Despite facing negative stereotypes and varied access to competitive opportunities, the participants who participated in the current study continued to actively participate in, and enjoy playing, the sport. Many participants viewed stereotypes as simply part of the rugby experience, consistent with existing research in non-traditional female sports that duty to the sport and managing adversity are viewed as part of playing (Elliott et al., 2020). It is clear that the obstacles faced by athletes who play traditionally masculine sports are resisted and potentially mitigated by the deep connections and community developed among players; where women's rugby union fosters a space for inclusivity and expression, and in turn acts as a fortress for stereotypes to be challenged and dispelled (Hargreaves, 1994; Murray & Howat, 2009).

Similarly, for many of the participants, the physical risks associated with playing rugby were accepted and, for some, embraced, as part of the game. For these players, whether it was negative stereotypes of being a women's rugby player or risk of injury, the perceived benefits – particularly enjoyment – they gained from playing outweighed the drawbacks (Bevan et al., 2020; Fields & Comstock, 2008). When exploring the factors contributing to their enjoyment of the sport, it was apparent that people and relationships were key. For instance, participants explained that having opportunities to play with friends and the fact that rugby was inclusive for individuals of all shapes and sizes, something participants had not experienced societally or in other sports (Chu et al., 2003; Howe, 2001), was particularly beneficial. While this social support acted as a protective factor to the challenges of the sport, the perceptions that stereotypes and injury were viewed as simply part of participating and had to be endured

cannot be overlooked. Considering the long-term consequences these perceptions may have on athletes, the importance of rugby unions, clubs, and policy makers in ensuring there is injury prevention strategies and psychological support for these players is crucial as they navigate these challenges both during and after their involvement in the sport.

Furthermore, social support was reported as a key facilitator for both initial engagement and sustained participation. As well as friends, this support came from various influential sources both within and outside the sport, including supportive parents and high-quality support staff. Parent involvement played a crucial role in fostering enjoyment for women's rugby players as parents provided essential emotional, tangible, and coaching support (Dorsch et al., 2021). The present study affirms that positive parental involvement remains a consistent factor for sustaining sport enjoyment and participation throughout an elite female athlete's life, with parents providing tireless and continuous support for players to access various developmental and advanced rugby opportunities throughout adolescence to adulthood (Knight et al., 2024).

Participants also reported the quality and accessibility of coaches and support staff as important facilitators to their involvement in rugby. This centred around both the rugby-specific support offered by coaches, as well as the interpersonal and emotional support provided within and outside the rugby environment. Coaches possessing knowledge of the various interpersonal, intrapersonal, and structural domains of players' lives, both in developing sport-specific skills and the overall person themselves, as well as possessing the skills to develop appropriately challenging and competitive environments, was central to participants' positive experience of the game and is consistent with current research (Côté & Gilbert, 2009; Taylor et al., 2022).

Several of these factors received dichotomized responses, meaning the presence and quality of social support from parents, peers, and coaches, was a substantial facilitator to those who received it, but a limited or lack of access to these specific factors appeared to have greater consequences compared to other factors.

### **Limitations and future directions**

The current study sheds light on the key factors affecting participation in elite women's rugby from the perspective of players. However, several limitations warrant consideration. As women's rugby in England has evolved and professionalised, the progression pathways from age-grade to senior levels have changed significantly.

Therefore, the perspectives of more senior players may be less reflective of the current pathway structure and societal perceptions than the insights from the current youth players. Additionally, although the lead researcher had established rapport with some participants through rugby camps and training sessions, others only talked with her during the interview, which may have limited the depth of discussion. Follow-up or secondary interviews could have provided richer insights and opportunities to further explore the data.

The nature and validity of integration in mixed methods research has been a topic of extensive discussion across various disciplines (Sparkes, 2015). Like others conducting mixed methods research, the present study faced limitations due to the structure of the research process where mixed methods were employed both as a methodology and a method, leading to integration at multiple stages and levels of the research process (Creswell, 2011). Although this approach ensured coherence throughout the research, it was challenging to fully capture the depth of integration, what elements were combined, and the underlying thought processes within the confines of a research paper.

The current study highlights a complex picture of barriers and facilitators interacting across different ages, levels, geographical locations, and experiences among others. Future research is required to further explore this complexity, including longitudinal studies and using in-depth qualitative methods to understand this intricacy and to gain further theoretical understanding of the barriers and facilitators to participation (Hopkins et al., 2022). Exploring different rugby environments, both across the UK and internationally, could also reveal a broader perspective as to whether similar factors influence participation across settings and highlight those which are contextually specific.

### **Conclusion**

This study provides insights into the factors which influence participation in the elite women's rugby pathway in England. Key facilitators included social support from parents, friends, and support staff within rugby and the enjoyment of the game, all of which contributed to both initial and continued participation. In contrast, barriers included stereotypes associated with the sport, time constraints, limited access at school, and challenges surrounding access to rugby opportunities linked with geographical location and education. Overall, the findings underline the complex and interrelated nature of these factors which vary depending on location, age, and playing environment. Based on these findings, it may be useful for local governments and the RFU and rugby

unions widely to collaborate with schools to create initiatives that promote girls' rugby programs and ensure rugby is included in the physical education curriculum so that students have access to the sport. Administrators and sports providers could develop opportunities to help players transition from youth to senior levels, especially for those not pursuing higher education or living in rugby-centric areas.

## Notes

1. In academic and public discussions, it is important to differentiate between sex and gender, as well as between 'female' and 'woman'. Sex refers to the biological attributes that classify individuals as male or female (World Health Organisation, 2024), while 'gender' encompasses the socially constructed roles, behaviours, and norms associated with being male or female (American Psychological Association, 2015). The term 'female' is used as an adjective to describe sex-based characteristics (e.g., female athletes), whereas 'women' is a noun referring to individuals who identify as women. This study draws on these definitions to examine the experiences of female athletes participating in the elite women's rugby pathway in England.
2. The England Rugby Women's Pathway (EWP) develops talent from community rugby to the elite level. In 2023, the pathway began with the Developing Player Programme (DPP), involving 28 local programs for 1,300 girls aged 14–16. Around 350 players progress to 12 regional Centres of Excellence (CoE) for ages 16–18, training alongside club or college teams. CoE players may be selected to represent England at U18 or U20 levels. Many U20's and all England senior team members (Red Roses), compete in the Premiership Women's Rugby (PWR), the top domestic league.
3. Participants had to be over the age of 14 years and a player in the EWP (i.e., part of a Under16 DPP, Centre of Excellence (CoE), England Under18's or Under20's team, Premiership Women's Rugby club (PWR), and/or Red Rose.

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