

The Youth Female Athlete

Sex and Gender Considerations
for Supporting Adolescent Athletes



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Introduction

Female sport participation is increasing globally and in recent years there has been growing recognition of the need to better understand the specific health, developmental, and performance considerations of female athletes across the life span ¹. However, despite this progress, dropout rates from female sport, especially during adolescence, is observed worldwide ². In Ireland, while overall sport participation among young people (aged 16-24) has risen from 69% in 2017 to 73% in 2024, disparities still exist ³. One in five girls drop out of sport between primary school and post-primary school, compared to just one in twenty boys of the same age ³. Furthermore, the 2022 Children's Sport Participation and Physical Activity Study ⁴ found that only 11% of adolescent girls met the physical activity guidelines for their age.

The drop in participation among girls often coincides with adolescence, a key stage of growth and development that brings physical, psychological and social changes that can shape their sporting experiences ^{5,6}. During this time, girls experience changes in body composition, hormonal fluctuations, and the onset of menstruation ⁷. Concerns around body image during adolescence add an additional barrier to sports participation for youth female athletes ⁸. These transitions and changes can influence confidence, comfort and motivation, contributing to the decline in participation observed during the teenage years ⁹. Creating favourable environments that acknowledge and respond to these developmental changes is essential to help girls remain active, confident, and engaged in sport throughout adolescence and into adulthood.

Supporting girls and young women to remain involved in sport through adolescence also depends on the structures and systems that shape their sporting experiences. Well-designed development pathways can help sustain participation by providing structure, opportunities, and a sense of progression for young athletes ¹⁰. However, much of what is currently known about development pathways is based on research with male participants, meaning that the specific contexts and experiences of girls are not always well understood ¹¹. Biological, social, and structural factors can shape how girls engage in and progress through sport, therefore insights drawn from male-based research may not always apply. A better understanding of these differences can help shape sport systems that more effectively support the development and wellbeing of youth female athletes.

To help understand how sport systems can better meet the needs of girls, this research aimed to explore the experiences of youth female athletes across organised sport in Ireland. Using a comprehensive questionnaire, the study aimed to examine how girls are supported within their sporting systems, their experience and knowledge of key health topics such as menstrual health, breast health and pelvic health, and the factors that influence their participation and wellbeing.

Research Aims and Objectives

This project aimed to investigate the sex and gender based experiences of youth female athletes across organised sport in Ireland. The objectives were to:

1. To examine the training experiences of youth female athletes across organised sport settings.
2. To assess knowledge and experiences related to female-specific health domains, including menstrual, pelvic floor, and breast health.
3. To investigate the availability of supports, facilities, and education within youth sport environments.
4. To identify factors within sport systems that may influence participation, wellbeing, and ongoing engagement in sport.

Methods

Study Design

This research involved a self-administered online questionnaire designed specifically for this study. The questionnaire comprised 82 questions across seven sections (Table 1) with questions based on existing validated questionnaires and on the research aims and objectives. A modified Delphi approach ¹² was used to validate the questionnaire prior to its use. This approach was used to gather opinions and consensus for each question from a panel of experts. The panel consisted of both academic and clinical specialists (90% female, 10% male), who rated each question for clarity and relevance. This process was continued in an iterative approach until consensus (80% agreement) was met for each question.

Table 1 Overview of questionnaire sections

Section	Title
Section 1:	Demographics
Section 2:	Strength training
Section 3:	Menstrual health
Section 4:	Pelvic floor health
Section 5:	Breast health
Section 6:	Environment
Section 7:	Gendered Environment

Participants

Youth female athletes aged 15-20 years were recruited to complete the online questionnaire. This included those competing at national (e.g., intercounty, provincial, or regional), international (competing for Ireland), and world level (competing at world finals). Participants were recruited through National Governing Bodies (NGBs), county boards, provincial teams, professional networks and in person at training sessions. All participants over the age of 18 received information about the study before providing informed consent; those under 18 years required parental assent before completing the questionnaire online. This study was approved by the Department of Sport and Health Sciences Research Ethics Committee in Technological University of the Shannon: Midlands.

Data Analysis

All data was collected using Microsoft Forms and was downloaded into a Microsoft Excel 2021 spreadsheet (Version 16.53, Microsoft Corporation, Redmond, WA). All statistical analyses were carried out using IBM SPSS Statistics (version 28, Inc, Chicago, IL). Chi-square test of independence was used to examine associations between categorical variables across age groups and level played. Statistical significance was set at $p < 0.05$. The data was searched and cleaned for typographical errors and spurious responses. Data is presented as frequencies, percentages, means and standard deviations. Open text box data was analysed using a combination of frequency analysis and qualitative content analysis, allowing for the creation of themes ¹³.

Results

Participant Information

A total of 285 youth female athletes, across nineteen sports, completed the online questionnaire. Twenty-two respondents were excluded (n=3 were over 20 years old, n=14 were under 15 years old and n=5 participated at club-level sport), leaving 263 for analysis (age 17 ± 1.76 years; range, 15-20). Participants were grouped into middle adolescence (15-17 years; n= 155) and late adolescence (18-20 years; n= 108). Figure 1 outlines the age range of the participants. Most athletes competed at national level (n=180,68.4%), with 28.1% (n= 74) competing at international level and 3.4% (n=9) world level. Figure 2 demonstrates an age comparison of competition levels. The majority of respondents were in full-time education, with 65% in school (n=171) and 31.5% in further education (n=83). Over half of the athletes did not work (n=139, 52.9%), while 46% engaged in part-time work (n=121).

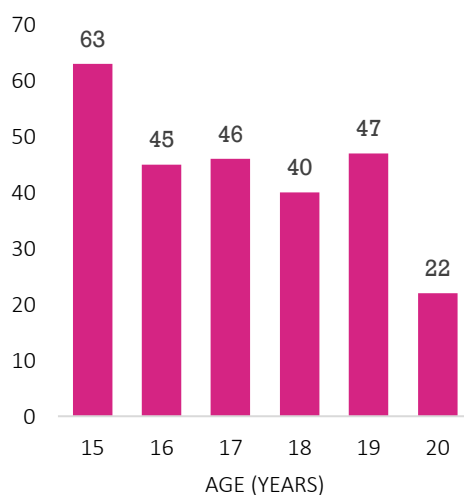


Figure 1: Age range of participants.

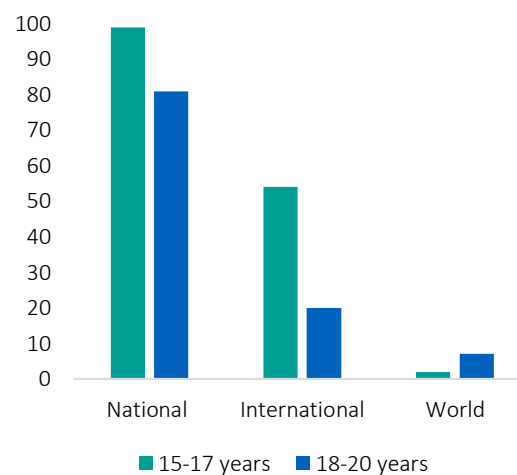


Figure 2: Level played per age group.

Gaelic games (n=85, 32.3%; including camogie, football and dual players) were the most represented sport, followed by soccer (n=64, 24.3%), athletics (n=33, 12.5%) and rugby (n=29, 11%) (Table 2). Almost half of the athletes reported participating in more than one sport (n=125, 47.5%).

Athletes most frequently reported having three pitch/track sessions per week (n=125, 47.5%), with a mean session duration of 100 ± 31 minutes reported (average 3.6 ± 1.6 sessions). Eighty-one per cent (n=214) of respondents reported doing additional sessions both on the pitch/ track and in the gym, with two additional gym (n=10), and two additional pitch sessions (n=65) the most frequently reported.

Table 2. Main sports of participants by total sample and age group

Sport	Total (N)	Age 15-17 (N)	Age 18-20 (N)	Age	Age starting
Gaelic games	85	32	53	18.8 ± 1.2	6.2 ± 2.4
Soccer	64	51	13	16.2 ± 1.5	6.9 ± 2.5
Athletics	33	26	7	16.2 ± 1.3	9.4 ± 3.4
Rugby	29	13	16	17.6 ± 0.6	8.8 ± 5.7
Rowing	10	7	3	17.0 ± 0	12.0 ± 0
Golf	11	8	3	17.0 ± 2.4	8.0 ± 4.7
Cricket	6	6	-	15.5 ± 0.7	4.5 ± 0.7
Basketball	3	-	3	18.0 ± 0	13.0 ± 0
Swimming	5	4	1	16.0 ± 1.4	6.5 ± 2.1
Gymnastics	3	2	1	18.3 ± 1.15	5.3 ± 1.5
Hockey	2	2	-	15.0 ± 0	11.0 ± 0
Sailing	2	-	2	19.5 ± 0.7	11.0 ± 0
Weight lifting	2	-	2	19.0 ± 1	15.5 ± 4.9
Boxing	2	1	1	17.0 ± 1.4	10.0 ± 0
Dance sport	1	1	-	17.0	16.0
Equestrian	1	-	1	18.0	7.0
Kayaking	1	-	1	20.0	12.0
Rock Climbing	1	1	-	17.0	8.0
Taekwondo	1	-	1	18.0	9.0
Cycling	1	1	-	16.0	5.0

Strength training

Eighty-seven per cent (n=231) of athletes reported engaging in formal strength training as part of their main sport, commencing at a mean age of 13.7 ± 2.7 years. Body weight (n=226, 97.8%) and free weight (n=217, 93.9%) exercises were the most commonly reported modes of strength training (Figure 3). Programmes were most frequently designed by a strength and conditioning coach (n=137, 59.3%), with the remaining athletes receiving their programme from their sports coach (n=48, 20.7%) or physiotherapist/athletic therapist (n=12, 5.2%), while 8.2% of athletes developed their own programme (n=19).

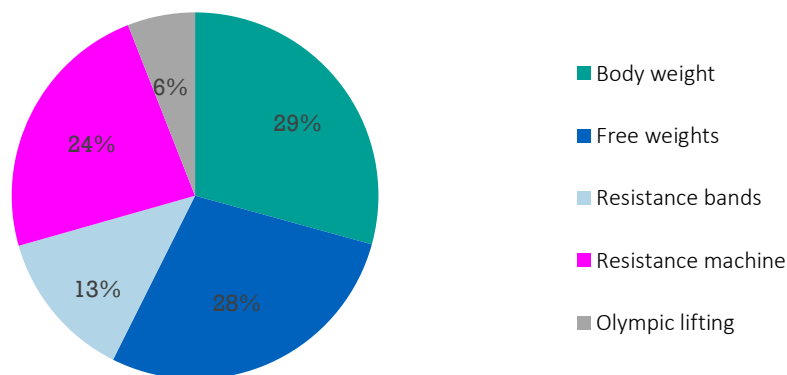


Figure 3: Type of strength training engaged in.

The majority of participants completed two strength training sessions per week (n=99, 42.9%) while 26.8% (n=62) engaged in three sessions and 20.3% engaged in one (n= 47). The average number of strength sessions were 2.4 ± 1.6 . Strength sessions were always supervised for 42% (n=97) of athletes, and almost all athletes (n=220, 95.2%) received a demonstration of the exercises, most commonly from a strength and conditioning coach (n=127, 57.7%), or sports coach (n=57, 25.9%) (Table 3).

Table 3. Descriptive information on strength session supervision

Question		Frequency (n)	Percentage (%)
Who demonstrated the exercises?	S&C coach	127	57.7
	Sports coach	57	25.9
	Performance coach	1	0.5
	Physio/ART	8	3.6
	Personal trainer	17	7.5
	SM influencer	1	0.4
	Other	9	4.1
Are your strength sessions supervised?	Always	97	41.9
	Sometimes	85	36.8
	Rarely	28	12.1
	Never	21	9.1
Who supervises the sessions?	S&C coach	143	61.9
	Sports coach	48	20.8
	Performance coach	5	2.2
	Physio/ ART	4	1.7
	Parent	14	6.1
	No one	9	3.9
	Other	7	3

The most frequently reported reasons for engaging in strength training were to enhance performance (n=228, 98.7%) and injury prevention (n=201, 87%), with 61.5% of athletes indicating that they would like to do more strength training (n=142) (Figure 4). The majority of athletes who strength train reported always (n=142, 61%) or sometimes (n=69, 30%) having access to a gym space, while 9% (n=20) reported having access rarely or never. Among athletes who did not engage in strength training (n=32, 12.2%), the most commonly reported reasons were not having a programme (n= 26, 81%), not knowing how to perform the exercises (n=12, 38%) and not having access to gym facilities (n=11,34%) (Figure 5).

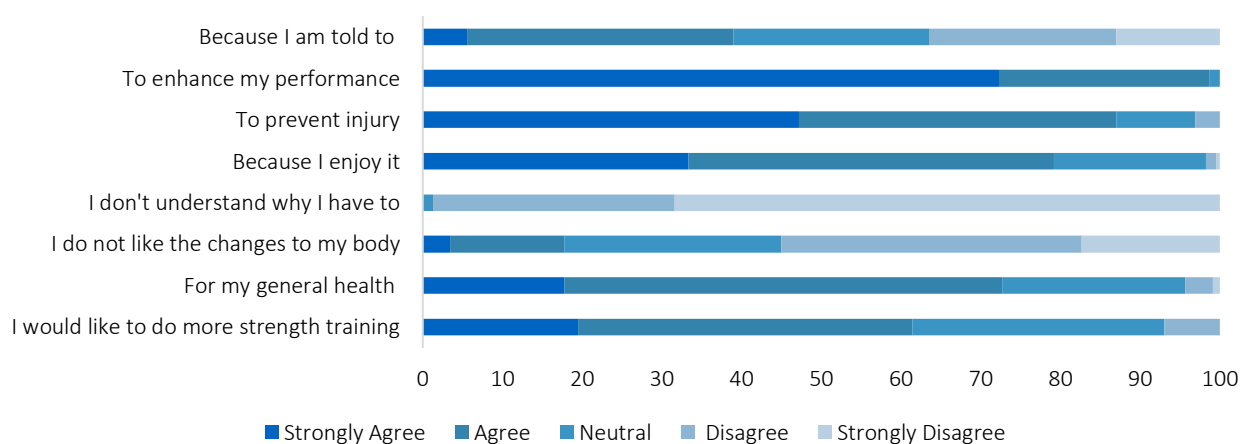


Figure 4: Youth female athletes' beliefs as to why they strength train.

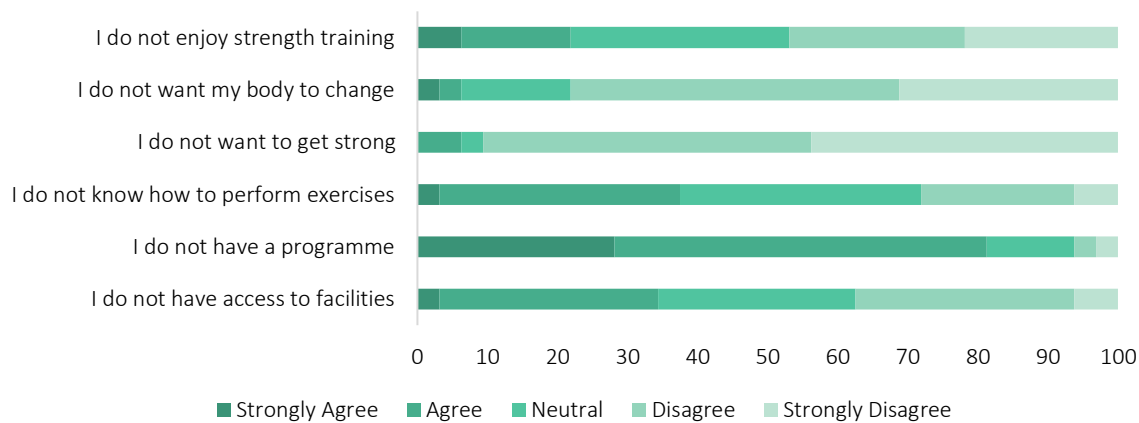


Figure 5: Reasons youth female athletes report not engaging in strength training.

Menstrual Cycle Health

Menstrual cycle characteristics and literacy

Ninety-nine per cent of respondents had experienced their first period, with 85% (n=221) of those reporting a naturally occurring cycle and 15% (n=40) currently using hormonal contraception. Forty-seven per cent (n=123) of respondents self-reported their menstrual cycle knowledge as good, with 36.5% (n=96) reporting it as average. Just over 40% (n = 107, 40.7%) of athletes could correctly identify both ovarian hormones involved in the menstrual cycle, and just over 60% (n=162, 61.6 %) knew the average menstrual cycle length. A chi-square test of independence showed a significant association between age group and the ability to name menstrual cycle hormones ($p < .001$) where participants aged 18–20 years (59.6%) were considerably more likely to correctly name the hormones than those aged 15–17 years (26.6%). Twenty-five per cent (n=55) of athletes reported that their period had stopped for more than three months. A chi-square test of independence showed a significant association between age group and amenorrhea ($p < .001$) where participants aged 18–20 years (28.4%) were more likely to experience amenorrhea compared to those aged 15–17 years (7.1%). Table 4 outlines the participants' menstrual cycle characteristics.

Table 4. Menstrual cycle characteristics.

Characteristic	Mean	Answer	N (%)
Age of menarche	12.6 ± 1.4 years		-
Length of cycle	28.4 ± 2.9 days		-
Period length	5.0 ± 1.27 days		-
Regular menstrual cycle		Not sure	20 (9)
		No	69 (31.2)
		Yes	132(59.7)
Period stopped for more than 3 months		Yes	55 (24.9)
		No	166 (75.1)

Of those who reported an irregular menstrual cycle or were not sure, 75% (n=67) stated that their cycle changes a lot from month to month while 12.4% (n=11) reported they do not pay attention to it, and 4.9% (n=4) reported that their period had just started in the last number of months. The remaining athletes (7.9%, n=7) reported other reasons, including “absent since 2024”, “recently not as regular”, “My period isn’t very consistent and often goes for a long period of time and then comes back”.

Menstrual cycle-related symptoms

All athletes with a naturally occurring menstrual cycle (100%, n=221) experienced at least one negative menstrual cycle-related symptom. Menstrual cramps were the most commonly reported symptom (n= 157, 67.1%), followed by effects on mood (n= 146, 62.3%) and fatigue (n= 126, 53.8%) (Table 5). Seventy-eight per cent (n=181) of athletes reported experiencing three or more negative symptoms. Symptoms were most commonly experienced during menstruation (n=103, 44%), or in the five days leading up to their period (n=103, 44%).

Table 5. Menstrual cycle-related symptoms

Symptom	Frequency (n)	Percentage (%)
Menstrual cramps	147	66.5
Mood is affected	139	62.3
Bloating	121	54.7
Fatigue	120	54.3
Cravings	96	43.4
Irritability	91	41.2
Low back pain	88	39.8
Headaches	68	30.1
Tender Breasts	68	30.1
Heavy legs	62	28.1
Anxiety	59	26.7
Nausea	44	19.1
Diarrhoea	42	19
Disturbed sleep	37	16.7
Constipation	25	11.3
Other	15	6.8
Reduced co-ordination	14	6.3

Forty per cent (n=90, 40.7%) of athletes reported that their menstrual cycle negatively impacts their sport participation and 19.5% (n=43) reported missing training or competition due to their menstrual cycle. The most commonly reported reasons for missed participation were menstrual cramps (n=29; 67.4%), fatigue (n=10, 23.3%), nausea (n=9, 20.1%), low back pain (n=5, 11.5%), heavy bleeding (n=4, 9.3%), feeling weak (n=3, 6.9%), anxiety (n=1, 2.3%), other (n=3, 6.9%). One athlete reported, “*We wear a white uniform, and my period has soaked through a few times. In the club it's not a big deal, but at competition I have been asked to stop competing mid-round*”.

Menstrual cycle tracking

Seventy-two percent of athletes reported tracking their menstrual cycle (n=160). The most common method of tracking was through the use of apps (n=133, 83.1%), followed by phone calendar (n=18, 11.3%) and written diaries (n=6, 3.8%). The majority of athletes tracked their cycle of their own accord (n=154, 96.2%) while four (2.5%) tracked it as part of their main sport, and two (1.25%) tracked it by themselves and through their main sport. No athletes who tracked as part of their sport reported receiving feedback on their menstrual cycle or symptoms.

Hormonal contraception use

Just under fifteen per cent of the participants (n= 40, 15.3%) reported current use of hormonal contraception commencing at a mean age of 16.6 ± 1.1 years. The combined oral contraception pill was most commonly used (n= 25, 62.5%), followed by the mini pill (n= 9, 22.5%), bar/implant (n= 3, 7.5%), and the intrauterine system/ coil (n= 2, 5%). One athlete reported not knowing what type of hormonal contraception she was using. Twenty-six athletes (65%) reported experiencing at least one symptom

related to hormonal contraception use most commonly mood changes (n=18, 43.9%), abdominal cramping (n=12, 29.3%) and fatigue (n=12, 29.3%) (Table 6).

Table 6. Symptoms related to hormonal contraception use.

Symptom	Frequency (n)	Percentage (%)
Mood is affected	18	45
None of the above	14	35
Abdominal cramps	12	30
Anxiety	12	30
Fatigue	12	30
Tender breasts	10	25
Bloating	9	22.5
Headaches	9	22.5
Low back pain	8	20
Irritability	8	20
Disturbed sleep	7	17.5
Heavy legs	7	17.5
Cravings	6	15
Nausea	5	12.5
Constipation	3	7.5
Diarrhoea	3	7.5
Other	1	2.5

While over half of participants (n=22, 55%) reported no perceived impact of hormonal contraception on sport participation, 25% (n=10) reported both positive and negative impacts, 12.5% (n=5) reported positive impacts only, and 7.5% (n=3) reported negative impacts only. Table 7 outlines how the athletes felt their hormonal contraception impacted their sport participation.

Table 7. Impact of hormonal contraceptive use on sport participation

Impact	Quote
Positive	<i>"I am not skipping out on training or matches due to cramps/ vomiting"</i> <i>"Has no effect at all, makes my period more manageable and predictable "</i> <i>"The bar has helped my periods in making them less heavy and painful"</i>
Negative	<i>"It has negatively impacted my sport as it has become extremely irregular, I am currently on 3 months of straight bleeding every day"</i> <i>"It negatively impacts my mood"</i> <i>"I feel as if my fitness has decreased whilst being on the pill"</i>

Pelvic Floor Health

Almost half (n=123, 46.8%) of athletes reported having never heard of the pelvic floor, and three quarters reported that their pelvic health knowledge was poor (n=112, 42.6%) or very poor (n=86, 32.7%). A chi-square test of independence showed a significant association between age group and perceived pelvic floor knowledge ($p < .001$) with participants aged 18–20 years (67.0%) more likely to have heard of the pelvic floor compared to those aged 15–17 years (43.5%). More than half of participants reported experiencing at least one pelvic floor symptom related to sports participation (n=141, 53.6%) with a strong sensation of needing to go to the bathroom (n=109, 41.4%) the most common symptom followed by pain in the lower abdomen or genitals (n=87, 33.1%), and leaking of

urine by 26.3% (n=69) (Figure 6). A chi-square test of independence showed a significant association between age group and leaking of urine ($p = .017$). Participants aged 18–20 years (33.9%) were more likely to report urinary leaking compared to those aged 15–17 years (20.8%). However when comparing level played, chi-square test of independence showed a significant association between level and inability to control wind ($p = .05$) and the experience of pelvic pain ($p = .008$) with those competing at national level more likely to experience these symptoms compared to those at international level.

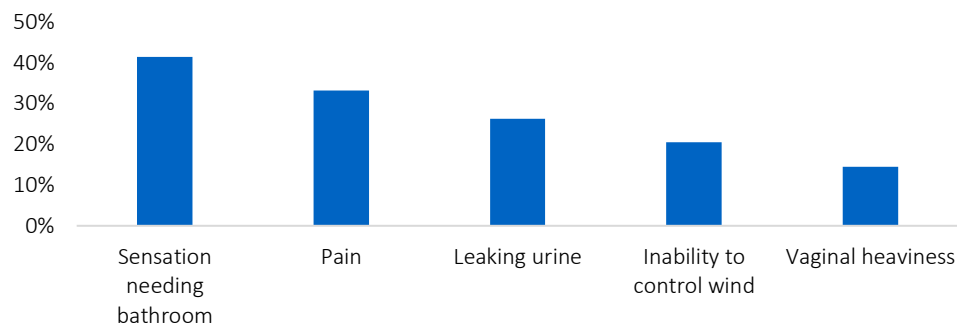


Figure 6. Pelvic floor symptoms experienced.

Figure 7 demonstrates the prevalence of pelvic floor symptoms across the top four most represented sports (Gaelic Games (n=85), soccer (n=64), athletics (n=33), and rugby (n=29), the remaining sports have been grouped (other n=52). Among all groups, participants in athletics report the highest prevalence across four of the five symptoms, with 36.4% (n=12) experiencing urinary leakage, 33.3% (n=11) experiencing inability to control wind, 54.5% (n=18) experiencing urinary urgency, 54.5% (n=18) experiencing pain, and 30% (n=10) experiencing vaginal heaviness. Rugby players reported the highest experience of urinary incontinence (n=11, 37.9%). Running (n=96, 68%) and jumping (n=68, 48.2%) were the actions that elicited the majority of the symptoms experienced, followed by tackling (n=21, 14.8%) and landing (n=20, 14.1%).

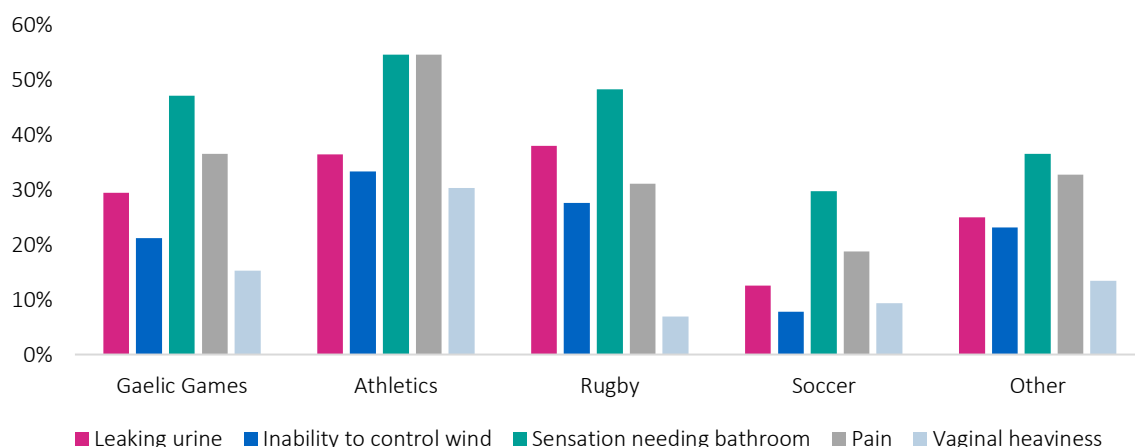


Figure 7. Pelvic floor symptoms across sports.

Breast Health

Participants most commonly reported their breast health knowledge as average (n=119, 45.2%) while 25.9% (n=68) reported it as poor, and 17.8% (n=47) reported it as good. Nearly 40% (n=98) of athletes reported being conscious of breast movement during sports participation. One quarter of athletes reported experiencing breast pain while competing in their sport (n=68, 25.9%), and 7% (n=18) experienced an injury to their breast while competing. Across the four most represented sports, breast pain was most prevalent in rugby (n=11, 37.9%), followed by Gaelic games (n= 24, 29%). Reporting of breast pain and breast injury was low, with 75% (n=51) of those experiencing breast pain not reporting that pain to anyone, and 55.5% (n=10) never reporting their breast injury. For the majority of athletes, participation in training or competition was not affected by their breast pain or injury (n=66, 97%). The most common cause of breast pain during sport was contact with an opponent (n=35, 47.9%), followed by jumping (n=31, 42.2%) and direct contact with a ball (n=28,38.4%) (Table 8).

Table 8. Outline of actions that have caused breast pain during sport.

Action	Frequency (n)	Percentage (%)
Contact with opponent	33	48.5
Jumping	30	44.1
Direct contact with ball	26	38.2
Running	25	36.8
Landing	15	22
Tackling someone	14	20.5
Being tackled	14	20.5
Direct fall on ground	9	13.2
Other	1	1.5

Almost all athletes (n=252, 95.8%) wear a sports bra during training or competition, primarily for support (n=143, 56.7%) and comfort (n=120, 47.6%). The most common reason for purchasing their chosen sports bra was its appearance (n=122, 48%), followed by the cost (n=81, 32%), consideration of the type of sport engaged in (n=79, 31%), and what their parents buy (n=52, 21%). Just over 70% of athletes (n=180) reported some level of discomfort associated with wearing their sports bra with shoulder straps digging in (n=94, 37.3%), not feeling well supported (n=58,23%) and experiencing rubbing or chaffing (n=39, 15.4%), the most commonly reported issues. However, only a minority (n=7, 2.8%) of athletes have ever had a professional sports bra fitting.

Environment

Figure 8 outlines participants' overall access to performance supports. Access to a strength and conditioning coach and physiotherapist/athletic therapist was widely available, with 54.4% (n=143) and 52.1% (n=137) of athletes reporting always having access, and 26.2% (n=69) and 24.3% (n=64) sometimes having access. However, access to nutritionists, psychologists and sports scientists was less widely available, with only 10.6% (n=28), 10.3% (n=27) and 6.1% (n=16) reporting always having access, respectively. Table 9 presents access to performance supports across the four most represented sports. Rugby players most commonly reported always or sometimes having access to nutritionists (n=23, 79.3%), when compared to soccer (n=33, 51.6%), Gaelic Games (n=41, 48.2%) and athletics athletes (n=4, 12.1%). Across all sports, sport psychology was commonly reported as *rarely or never* available (n=196, 74.5%). Access was lowest in athletics (n=1, 3%), followed by rugby (n=7, 24.1%), Gaelic Games (n=25, 39.4 %) and soccer (n=22, 34.4%).

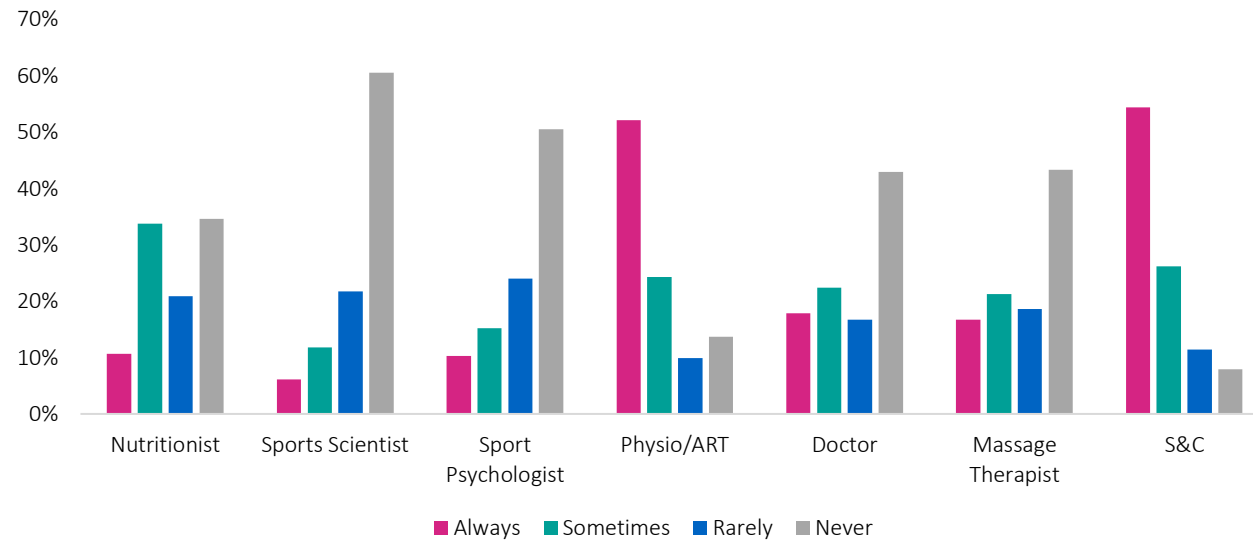


Figure 8. Access to performance supports. (ART= athletic rehabilitation therapist; S&C= strength and conditioning coach).

Table 9: Access to performance support disciplines across sports- percentage of athletes reporting regular access ("Always" or "Sometimes") and inconsistent access ("Rarely or "Never") to each service. Values are reported as % (n).

Performance support discipline	Gaelic Games (n=85)		Soccer (n=64)		Athletics (n=33)		Rugby (n=29)		Other (n=52)	
Nutritionist	48.2 (41)	51.7(44)	51.6 (33)	48.4(31)	12.1(4)	87.9 (29)	79.3 (23)	20.7 (6)	30.8 (16)	69.2(36)
Sport Scientist	14.1(12)	85.9(73)	35.9 (23)	64 (41)	3 (1)	97(32)	17.2 (5)	82.7(24)	11 .5(6)	88.5 (46)
Sport Psychologist	39.4(25)	70.5(60)	34.4 (22)	65.6 (42)	3(1)	97(32)	24.1 (7)	75.9 (22)	23.1 (12)	76.9(40)
Physiotherapist	85.8(73)	14.1(12)	93.8 (60)	6.2 (4)	45.5(15)	54.5(18)	93.1 (27)	6.9 (2)	50(26)	50 (26)
Doctor	25.9(22)	74.1 (63)	73.4(47)	26.6 (17)	24.2 (8)	75.8(25)	48.3 (14)	51.7 (15)	28.8(15)	71.2 (37)
Massage Therapist	38.8 (33)	61.2 (52)	56.2(36)	43.8(28)	27.3(9)	72.7 (24)	41.4 (12)	58.6 (17)	19.2(10)	80.8(42)
S&C	82.4(70)	17.6 (15)	89.1(57)	10.9 (7)	60 .6(20)	39.4(13)	93.1 (27)	6.9 (2)	73.1 (38)	26.9(14)

Over half of athletes (n= 134, 51%) reported that they rarely or never had access to sanitary products in their training facilities, and 41.8% (n=110) reported rarely or never having access to hot showers. Figure 9 outlines the access female youth athletes had to facilities in their main sport.

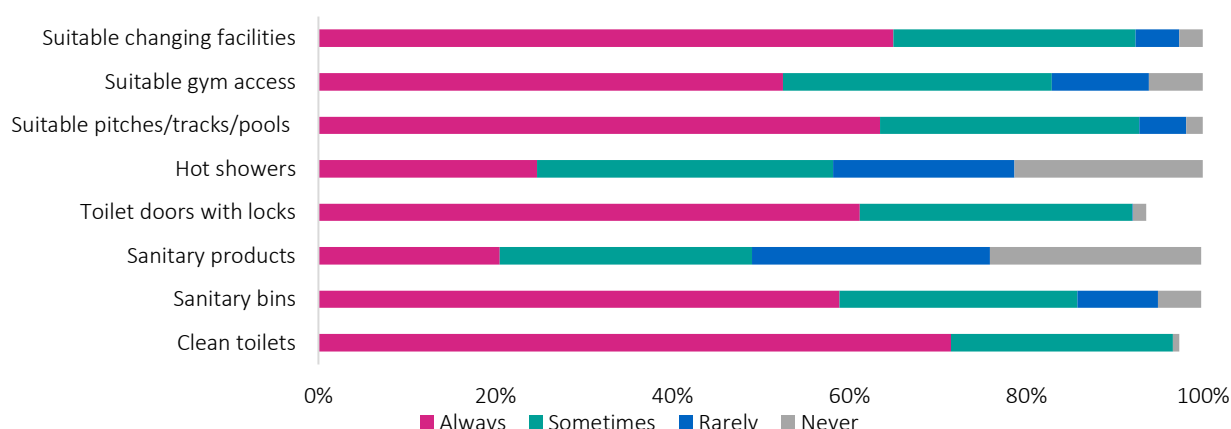


Figure 9. Access to facilities in the main sport.

Parents were those whom the athletes felt most comfortable talking to in relation to the female health domains of menstrual cycle health (n= 118, 45%); pelvic floor health (n= 101, 38%), and breast health (n= 117, 44.5%). Athletes reported being 'very comfortable' when speaking to the head coach about training performance (n=154, 58.6%) or competition performance (n=162, 61.6%) but were less comfortable engaging with their coach about female specific health domains (Figure 10).

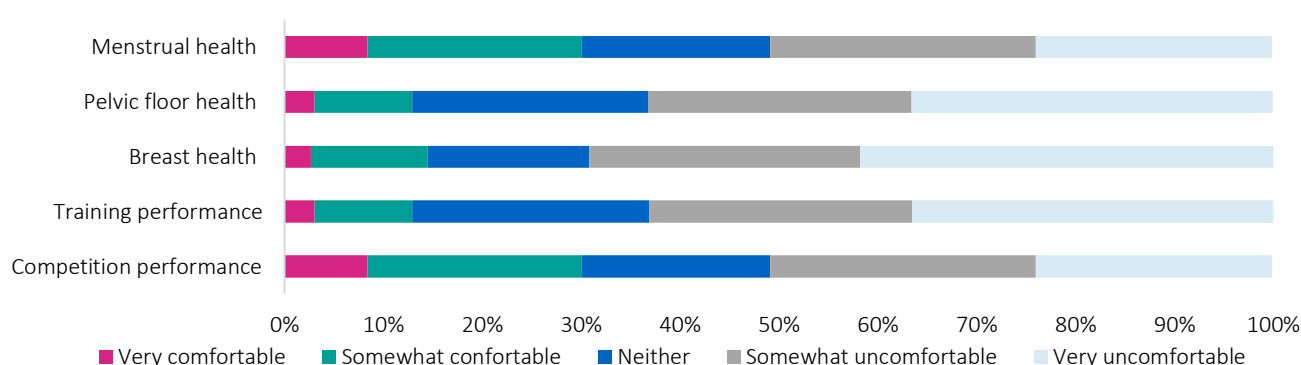


Figure 10. Athletes' comfort levels discussing topics with the head coach.

Most athletes received education on strength and conditioning training (n=239, 90.9%). However, just under half of participants (n= 130, 49.4%) reported receiving education on menstrual cycle health, and the majority of athletes reported receiving no education on pelvic floor health (n= 243, 92.4%) or breast health (n=242, 92.02%) as part of their main sport.

The majority of athletes (n= 154, 58.55%) reported that being a girl had both a positive and negative effect on their sporting experience. A further 16.7% (n=44) reported that being a girl had no impact on their experience, while 7.2% (n=19) felt it had a solely positive effect and 18% (n=48) felt it had a solely negative effect. Positive experiences were commonly described in relation to the themes of 'comradery', 'equality', and 'motivation' while negative experiences were described in relation to the themes of 'inequality', 'limited resources', 'societal perception' and 'female physiology' (Table 10).

Table 10. Content analysis of respondents' experience of participation in sport.

Impact	Theme	Quote
Positive	Comradery (n= 29)	<i>"Make new friends, gives me a medium to talk about common issues we experience"</i> <i>"Sense of belonging is good"</i> <i>"Friendships and teammates"</i>
	Motivation (n=25)	<i>"Training against boys can give girls the extra push and motivation to train harder just that little bit harder"</i> <i>"I feel empowered being a female athlete"</i> <i>"Makes me work harder"</i>
	Equality (n=19)	<i>"Less girls in sports but girls are included equally"</i> <i>"In athletics I feel girls and boys are treated the same. We train together too"</i>
Negative	Inequality (n= 91)	<i>"In a male dominated sport girls are treated with a lack of respect and their knowledge is disregarded"</i> <i>"Boys and girls still don't get treated as equals "</i> <i>"Being a girl means that I've had to come to the understanding that girls will not get the same experience in sport as boys will"</i>
	Societal perception (n=77)	<i>"Achievements in your sport being seen as less than due to your gender in comparison to boys"</i> <i>"People normally have lower expectations for me and are shocked when I can do something a boy can do"</i> <i>"The negative part is comments I see online about women's sport"</i>
	Female Physiology (n=42)	<i>"As a girl I cannot be consistent like a man would be because of all the changes in my body and mood and energy levels"</i> <i>"You're more prone to injuries"</i> <i>"Being a girl in swimming is hard specifically around body composition and looks, you are not taught how an optimal body might look different for everyone, instead its more the lighter you can get the better which can lead to lots of negative relationships with food"</i>
	Limited resources (n=36)	<i>The disparities between funding and resources in the men's and women's game has negatively impacted my experience"</i> <i>"Training resources not as good as the boys"</i> <i>"Access to less facility's, pitches, training slots etc"</i>

When asked whether there was additional information that could better support them in their sport, nearly half (n=112, 42.6%) of the participants indicated that further support would be beneficial. The most commonly identified needs included: additional education (n=78, 69.6%); greater equality within their sport (n=13, 11.6%); improved access to performance supports (n=12, 10.7%), and increased representation and involvement of women within female sport (n=12, 10.7%). Figure 11 describes the mediums through which the athletes would like to receive this support, with in-person sessions being the most popular option (n=127, 45.9%).

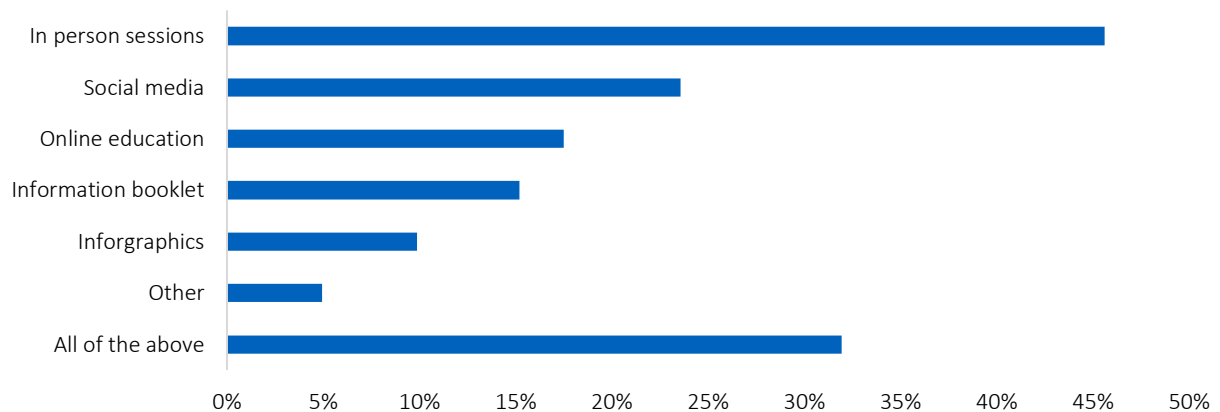


Figure 11. Medium through which the athletes would like to receive further support.

Summary of Findings

- **Strength training:** Most athletes reported engaging in structured strength training as part of their sport, commonly to support performance and injury. Less than half of athletes reported that their strength training sessions were always supervised, and a smaller proportion of athletes reported not engaging in strength training due to limited access to programmes, knowledge, or facilities.
- **Female-Specific Health Knowledge:** Knowledge across menstrual, pelvic floor, and breast health domains varied, with particularly low self-perceived knowledge reported for pelvic floor and breast health. These gaps were observed alongside a high prevalence of related symptoms.
- **Menstrual Health Experiences:** Menstrual cycle-related symptoms were commonly reported among athletes, and one in five athletes reported missing training or competition due to menstrual cycle-related symptoms.
- **Pelvic Health and Breast Health:** A notable proportion of athletes reported experiencing pelvic floor and breast-related symptoms during sport participation. Many athletes indicated that these symptoms were not disclosed to others.
- **Sport Environment and Access to Supports** Athletes reported varying levels of access to performance supports and facilities across sport settings, including differences in access to specialist services and basic amenities.
- **Communication and Gendered Experiences** Athletes reported greater comfort discussing performance-related issues with coaches than female-specific health topics. Experiences of inequality, limited resources, and societal perceptions of female sport were also described.

Implications for Practice

1. *Female-specific health education should be considered a routine component of youth sport environments.*

Findings indicate low levels of knowledge across menstrual cycle, pelvic floor, and breast health, alongside a high prevalence of related symptoms among youth female athletes. Despite almost half of athletes reporting receiving education on menstrual health, knowledge was often self-perceived as poor, and education on pelvic floor and breast health was largely absent. These findings highlight the need for accessible, age-appropriate information to better support girls' understanding and management of female-specific health within sport. Improving knowledge in these areas may support not only sport participation and performance, but also broader physical health and wellbeing during adolescence.

2. *Sport systems should aim to provide more consistent and equitable access to appropriate supports and facilities.*

While many athletes reported regular access to strength and conditioning coaches and physiotherapists, engagement with other key supports, such as nutritionists, psychologists, and sports scientists, was limited. In addition, over half of athletes reported rarely or never having sanitary products in their training facilities, and many reported inconsistent access to basic amenities such as hot showers. Greater consistency in the provision of performance supports and athlete welfare resources may help create environments that better support participation, development, and well-being among youth female athletes.

3. *Sporting environments should be supported to better address female-specific health within youth sport.*

Athletes reported being very comfortable speaking to coaches about training and performance, but less comfortable discussing female-specific health topics such as menstrual cycle, pelvic floor, and breast health. Parents were most commonly identified as the primary source of support in these areas. Providing targeted education and guidance for those working with youth female athletes may help create environments where athletes feel more comfortable seeking support and managing their health alongside sport participation.

4. *Creating gender-aware and equitable sporting environments remains an important consideration within youth sport.*

Many athletes described both positive and negative experiences of being a girl in sport. Positive experiences were commonly described in relation to social connection, motivation, and opportunities to be competitive, while negative experiences were commonly linked to inequality, limited resources, and societal perceptions of female sport. In line with this, athletes identified a need for greater equality, improved access to resources, and increased representation of women within sport settings. These findings suggest that gender-related factors continue to shape girls' sporting experiences. Efforts to strengthen equity, visibility, and support for female athletes may help foster environments that better sustain participation and positive sporting experiences.

Research Team

Angela Kenneally is a postgraduate research student in the Department of Sport and Health Sciences in TUS Athlone. Angela graduated with a BSc (Hons) Physiotherapy from Trinity College Dublin in 2008 and, since then, has had the opportunity to work as the lead physiotherapist for the Republic of Ireland women's national team. She completed her MMedSc in Sport and Exercise Medicine from University College Cork in 2021. Her current research focuses on the experiences of youth female athletes within their sporting environments. Angela hopes to bring greater awareness and implement real-life change in youth female sporting environments

Dr. Niamh Ní Chéilleachair is a senior lecturer in the Department of Sport and Health Sciences at TUS Athlone and is the Sports Performance Co-Lead in the SHE Research Group. Niamh is also a performance physiologist and has worked with high-performance athletes across a range of sports, including rowing, swimming and athletics. Her research interests are of a multi-disciplinary, applied sports science nature, focusing on improving the health, well-being, and performance of athletes. In particular, Niamh's research focuses on female physiology and narrowing the gender data gap that exists in sport and exercise science.

Dr. Aoife Lane is Head of the Department of Sport and Health Sciences in TUS Athlone. Aoife is a founder of the Women's Gaelic Players Association and has a particular interest in addressing the gender data gap in sports science and health research. Aoife is co-chair of mide research, an all island consortium for research about women in sport and physical activity. Aoife is also a member of Sport Ireland's Research and Participation and Women in Sport Sub Committee.

Eamonn Henry is the Coordinator of Offaly Sports Partnership and has been in the role since it was designated by Sport Ireland in 2006. Eamonn has been involved in numerous projects and initiatives aimed at increasing participation levels in sport and physical activity. Offaly Sports Partnership also highlight the importance of inclusion and diversity and provide diverse opportunities for people to participate in sport and physical activity. Eamonn is also currently an athletics coach to a small number of athletes.

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