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The Connacht rugby player retention research program

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The Connacht Rugby Player Retention Research Program

An investigation into the barriers and facilitators to
continued participation in club rugby in Connacht

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The Connacht Rugby Player Retention Research Program: An investigation into the barriers and facilitators to continued participation in club rugby in Connacht.

Patrick McEvoy

Abstract

There is an evidence base to suggest that player drop-out is particularly high among rugby players between the ages of 16-20. While there is some literature on proposed context-specific reasons for drop-out in the UK (Colby & Till 2017; Sellars et al., 2018), little research has been done in Ireland to explore the specific factors that may contribute to drop-out in youth rugby. The understanding of these factors may enhance the immediate sporting environment to retain players of both genders and to provide a sustainable framework to increase participation in rugby in the medium to long term.

The aim of this study was to explore stakeholders' perceptions of the push and pull factors linked to the retention of rugby players aged 16-20 years old in the province of Connacht in Ireland. The project was divided into three phases. Phase one of the project consisted of a review of the broader body of research literature on factors that influence dropout and continued participation in competitive sport for young people between 16-20 years of age. Findings from the review suggest that while factors associated with dropout from sport are complex and multifactorial, there are key factors surrounding an individual's intention to continue in their sport or to dropout. Social factors, physical factors and contextual factors influence an individual's level of intrinsic motivation which is a key determinant of an athlete's intention to continue in sport.

Phase two examined a database held by the province, which tracks player participation, to identify factors associated with player retention. The database provided demographic information on youth players from U-13 to U-19 including team type, competition(s) and the total appearances for players participating in the region. Results showed that at each age grade examined, the median number of appearances for those that were retained were significantly higher than those that were not ($p < 0.05$) suggesting that the more appearances a player records, the greater likelihood of retention. Playing for multiple rugby teams or age-grades was associated with higher retention rates than playing for one team only ($p < 0.05$), indicating that playing for multiple teams is not problematic for participation, at least in the short term. There was no association found between quartile of birth and number of appearances. This absence of relative age effect in Connacht is a positive finding.

Phase three consisted of a qualitative analysis of stakeholder perspectives of barriers and facilitators to continued participation in club rugby in Connacht. Eight stakeholder focus groups were conducted to assess perceptions of positive and negative aspects of rugby participation in Connacht associated with dropout and retention. Findings suggest that the elements inherent to rugby, the physicality, mutual respect, and the bond within the team environment, led to player enjoyment and motivated them to persist in rugby. Work/ study commitments were a barrier to continued participation in rugby, but these barriers were attenuated if the rugby environment and its gatekeepers (coaches, parents and peers) supported participant needs as players and individuals. These insights highlight context specific factors which will help guide policy on player retention in Connacht.

Declaration

I declare that this thesis and the work presented is my own. Results and findings have been generated as a result of my own original work and I have given due acknowledgement to the contributions of others. This work has not been submitted for academic award elsewhere.

Signed: Patrick McEvoy February 2022

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Glossary of terms

Connacht Rugby Age Grade Committee- Oversees all running and administration for mini (6-12), youth rugby (12-18.5) and schools rugby across the province of Connacht

Connacht Rugby Club and Community- Oversee the administration, promotion, and development of all aspects of rugby across the province of Connacht excluding professional rugby and refereeing.

Gaelic Athletic Association (GAA)- The Gaelic Athletic Association (GAA) is Ireland's largest sporting organisation. The Association promotes Gaelic games such as Hurling, Football, Handball and Rounders and works with sister organisations to promote Ladies Football and Camogie. The Association also promotes Irish music, song and dance and the Irish language as an integral part of its objectives.

Lifelong Involvement in Sport and Physical Activity Models- The Lifelong Involvement in Sport & Physical Activity (LISPA) is a working group of researchers and practitioners whose framework model illustrates how physical literacy is the foundation for lifelong involvement in physical activity.

The Lifes2Good foundation- The funding body for this project. The main objective for which the Company is established, is to provide charitable and financial support to civil society and community-based organisations.

The “UL Beo” initiative- An initiative by the University of Limerick to create a world leading environment for the practice and research of sport and physical activity.

Chapter 1 Introduction

Data on youth rugby players in Ireland suggests that dropout is particularly severe between the ages of 16 and 20 years. This trend in adolescent drop-off is also observed in other field sports in Ireland such as soccer, Gaelic football and hurling (Lunn & Kelly, 2019). Continued participation in sport at this age is viewed as an important avenue to promote physical, mental, and social well-being (Eime et al., 2013; Schüttoff et al., 2018; Torstveit et al., 2018; Sawyer et al., 2012) and is positively associated with continued physical activity in adulthood (Batista et al., 2019). Decisions about sport participation arise from the complex interaction of a broad range of factors including physical maturity and cognitive and psychosocial development (Brown et al., 2017). There is some literature available on proposed context-specific reasons for drop-out in rugby. Sellers et al. (2018), found that those players who placed value in their participation were more likely to continue in rugby. This perceived value was underpinned by enjoyment and satisfaction afforded by opportunities to participate, quality of coaching, peer relationships and a sense of identity as a rugby player. Cogley and Till (2017), found that players between the age-grades U-13 up to U-19 who were relatively younger, were up to fifty percent more likely to cease participation, highlighting an issue with player selection and differentiation during sports development. This research, however, is based on rugby populations in the United Kingdom. There are unique cultural differences in the sporting landscape between the UK and Ireland, for example, the dominance of GAA sporting codes of hurling and football. The density of GAA facilities and the tradition of its link to local community (Lane et al., 2016) provides a unique landscape when considering context-specific factors that may influence participation in other competing sports in Ireland. There has been some research in Ireland into player drop-out in the GAA codes of football and hurling which suggest that enhancing a player's social support (coach, parent, and peer), sense of autonomy and a positively perceived sense of identity decreases likelihood of dropout (Sheridan et al., 2015). While this research is limited to GAA, it does shed some light on possible reasons for the common trend in player drop-off in Irish field sports. Currently there is a lack of research in Ireland exploring the specific factors that may contribute to drop-out in youth rugby in an Irish context that may shed further light on this phenomenon.

Taking these considerations into account, the Connacht Rugby Age Grade Committee approached the University of Limerick through the "UL Beo" initiative (Department of Physical Education and Sports Sciences) to examine ways that the branch could support

the underage player pathway to better facilitate the playing experience, reduce drop out and ultimately see more players playing at all ages and continuing to adulthood as participants in rugby at all levels. These goals would be in line with the Irish Rugby Football Union and Sport Ireland commitments to the Lifelong Involvement in Sport and Physical Activity Models (McPhail et al., 2010) and to help broaden the population of players available to progress to more high-performance sport. This project was supported by the Lifes2Good foundation. One of its aims is to support community initiatives in the West of Ireland and the foundation recognises the critical importance that local community sport plays in the wellbeing of people and the physical and social health of communities. The broader aims of this research are to enhance the immediate sporting environment, to retain players of both genders, to encourage more young people to participate in rugby, especially from non-traditional cohorts and areas, and to provide a sustainable framework to increase participation in club rugby in Connacht in the medium to long term. A sequential mixed-methods approach (Cresswell & Plano Clark, 2011) was used in order for each phase to help inform on the next and also through triangulation of the findings to help provide a clearer picture of the overall implications. Firstly, a review of the current available literature to capture current understanding, then a review of the province's database to understand and inform on participation trends and finally a series of stakeholder focus groups to delve into details and specific perspectives of the current practices and issues in rugby in the province. In line with recommendations by Tashakkori & Teddlie (2010) the validity of implications can be enhanced by convergent, complementary, or divergent results when exploring or investigating a phenomenon.

In this project, three phases of investigation were conducted. Firstly, contained in chapter two, a review of the broader body of research literature on factors that influence dropout and continued participation in competitive sport for young people between 16-20 years of age. Secondly, contained in chapter three, a quantitative analysis of the Connacht player database. This is the database maintained by Connacht Rugby Club and Community and contains a range of information on each player: which teams an individual appears with, the club team, the school team and those that participate in more than one age-grade. These variables associated with appearances were analysed to inform of any independent relationship with player retention. The aim of the analysis was to help inform Connacht Rugby Club and Community staff on current policies surrounding player development, help establish a framework for monitoring player

progression and help inform the research design for the third phase of the project. The third phase, contained in chapter four, was a qualitative analysis of stakeholder perspectives of barriers and facilitators to continued participation in club rugby in Connacht. A series of eight stakeholder focus groups were conducted to delve into perceptions of positive and negative aspects of rugby participation in Connacht associated with dropout and retention. The discussions provided insight into player motivations, factors that support continued participation (pull factors) and barriers that hinder continued participation (push factors).

In chapter five the implications of this research are presented and triangulated with recommendations and examples of ongoing policy changes implemented by Connacht Club & Community based on the findings of this project. It is hoped that these implications will shed some light on specific challenges faced by policy makers to enhance retention in rugby and add to the current body of knowledge on sports drop-out in Ireland.

Chapter 2

**What advice does current research give us about retaining
participants aged 16-20 in competitive sport?**

Key Messages from The Literature

2.1 Aims of the literature review

Research suggests that youth participation in organized sports as an important avenue to promote physical, mental, and social well-being (Eime et al., 2013; Schüttoff et al., 2018; Torstveit et al., 2018; Sawyer et al., 2012) and increases the likelihood for a physically active lifestyle in adulthood (Kjønniksen, 2009; Batista et al., 2019). Despite this, dropout from youth sport continues to be an issue (Balish et al., 2014) and cessation of sports participation can lead to negative physical and psychological wellbeing in adolescents (Vella et al., 2014; Vella et al., 2015). Recent reviews on dropout and continued participation in youth sport suggest that lack of enjoyment, negative perceptions of competence, social pressure and competing demands are associated with dropout (Crane & Temple, 2015) and sense of autonomy, positive perceptions competence, relatedness, and task-orientated motivational climate are associated with continued participation (Balish et al., 2014).

The primary aim of this review of the literature, was to identify research on factors that influence dropout and continued participation in competitive sport for young people between 16-19 years of age. The intention is to gather and distil this research to help inform on current best practice in the retention of athletes, and highlight factors which undermine an athlete's motivation to continue. Through this review process, we sought to assess the literature and update our understanding, to inform on the design of a series of focus groups to further investigate the more specific factors involved in dropout and continued participation within the rugby community in Connacht.

2.2 Methods

With consideration surrounding time constraints, a rapid review approach was deemed the most appropriate search method for the needs of this project. According to Tricco et al., (2015), a rapid review is a systematic review process in which components are simplified in order to produce desired information in a short time frame. A search was conducted using established on-line research databases EBSCOhost (Academic Search Complete, MEDLINE, PsycINFO, SPORTDiscus with full text, UK & Ireland Reference Centre), Scopus, PUBMED and Web of Science. This search was restricted to published papers between the dates 01/01/2000 to 01/07/2020 (time of writing); this time frame was agreed upon when the body of literature was assessed, balancing both depth and relevance of the desired research. Key words were used to identify all possible

articles of interest. The key words and abbreviations associated with retention were defined as “Retention” or “retain” or “participat*” or “drop-out” or “dropout” or “barriers” or “attrition”. Abbreviations for sports involvement were defined as “Sport*” or “rugby” or “team sport*” or “athletics”. Age demographic search abbreviations were defined as “Adolescen*” or “teenag*” or “young adult”. Specific inclusion criteria were used to screen the available literature (table 2.1).

Table 2.1: Agreed inclusion/ exclusion criteria for harvested papers

Inclusion	Exclusion
Teenage, adolescent, or young adult, male or female which incorporate the 16-20 age range.	Children (cohorts with a maximum age of ≤ 17 years).
Western European cultural background	All others
Specifically, a competitive sporting context	Physical activity/ exercise
Factors associated with Drop-out/ retention	Factors increasing participation/ uptake
Published qualitative studies, quantitative studies, mixed method approaches	Non peer reviewed, magazine articles, commentaries, narrative reviews, systematic reviews

All papers which met these criteria were subject to a critical appraisal to assess for research quality and suitable rigor. This appraisal was adapted from the Critical Appraisals Program checklist for qualitative research appraisal (2018). Table 2.2 outlines the critical criteria appraisal. A full description and rationale for the critical appraisal can be viewed in appendix 1. Findings from papers that were deemed suitable based on our criteria, were extracted and synthesised to obtain the relevant information needed in this review. A Prisma flow chart of the screening process can be viewed in appendix 2.

Table 2.2: Critical appraisal checklist to ensure quality of research for included papers.

Critical appraisal checklist for quality of research	
1	Clear statement of aims
2	Was research method appropriate to study aims?
3	Did study design addresses aim?
4	Based in a valid theoretical framework?
5	Are limits of Theoretical framework scope discussed in the findings?
6	Appropriate participant recruitment strategy to address aims?
7	Was the data collection method sufficiently rigorous?
8	Suitable rigor applied to data analysis?
9	Clear statement of findings?
10	Do authors mention how findings may build on current research?

2.3 Findings

The motives, barriers and facilitators associated with dropout and continued participation are complex and multi-factorial. These factors do not run parallel and often overlap and merge into concurrent themes. For this reason, and because the review was primarily designed to inform coaches, coach developers, and policy makers at Connacht Rugby, the factors have been discussed not categorically, but in relation to the individual and the influences that surround the individual (see figure 2.3). These factors have been extracted and attributed to the corresponding studies alongside representative extracts. These extracts can be viewed in the executive report in appendix 3.

2.3.1 Key factors that influence an individual's level of motivation

Figure 2.1 illustrates the key factors surrounding an individual's intention to continue in their sport or to dropout. Social, physical, and contextual factors influence an individual's level of motivation and are explored below. Roberts and Treasure (2001, p.6) define motivation as "the investigation of the energisation and direction of behaviour". It is important to recognise that motivation is a key determinant of an athlete's intention to continue in sport. The motivational continuum in figure 2.3 is based on self-determination theory (Deci & Ryan, 2002). Self-determined motivation is when an individual is motivated to fully engage in a process for reasons of enjoyment and personal developmental needs, having a positive effect on intention to practice and continued participation in sport and supported by fulfilment of an athlete's basic

psychological need for relatedness, competence, and autonomy. While these needs underpin an individual's intrinsic motivation, they are influenced by social and contextual factors, some of which are modifiable and affect motivation to continue in sport.

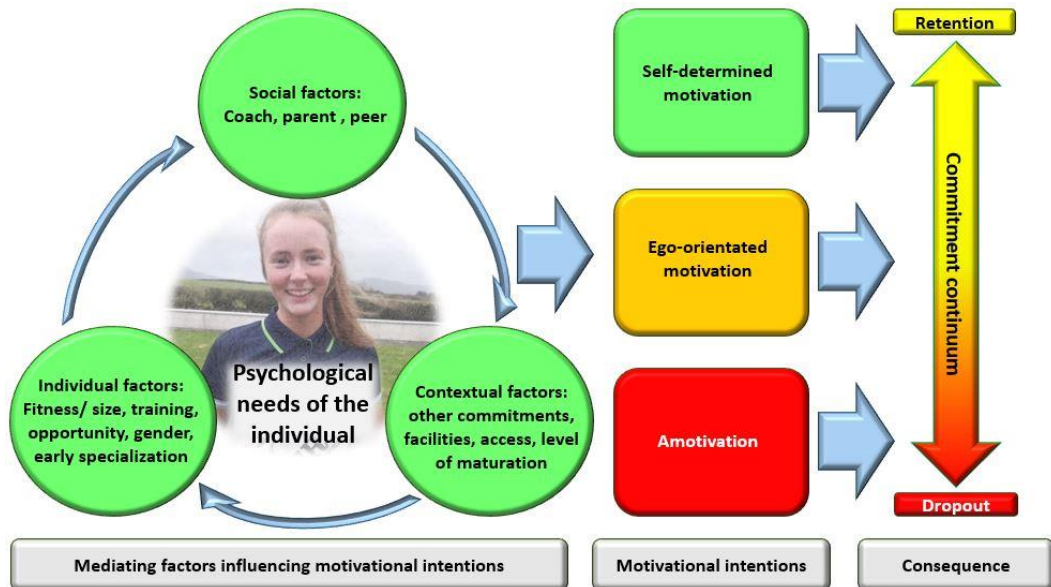


Figure 2.3: Key factors that influence an individual's level of motivation

2.3.2 Psychological needs of the individual

Self-determination theory (Deci & Ryan, 2002) suggests that humans have basic psychological needs, which must be fulfilled to enjoy optimal well-being. These are defined as competence, autonomy, and relatedness. In a sporting context, competence is a feeling that the individual has the ability, opportunity and understanding to be effective in a chosen sport. Autonomy refers to an innate perception of choice and self-directedness, while relatedness indicates a sense of mutual caring and connectedness with significant others in their direct sporting environment. Their relationship to an individual's motivation is illustrated below in figure 2.4

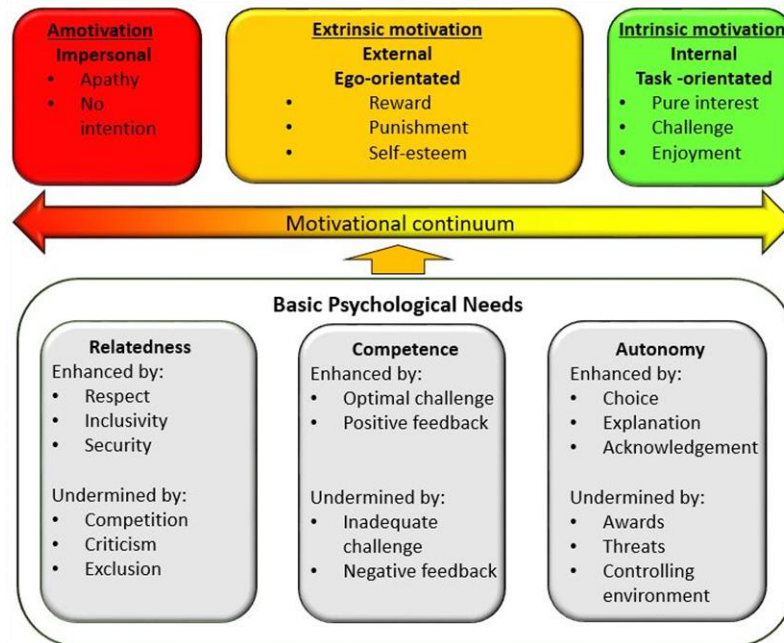


Figure 2.4: A diagram illustrating how Basic Psychological Needs and fulfilment of those needs, can interact to influence an individual’s motivational behaviour.

Rugby players who report greater levels of fulfilment towards these three basic psychological needs, also report lower levels of athlete burnout (Hodge et al., 2008) and higher levels of intrinsic motivation which is associated with higher levels of engagement in sport (De Francisco et al., 2018). Psychological needs fulfilment is a predictor of sport commitment in athletes (Lukwu & Luján, 2011). Other models suggest that a high dispositional orientation toward external motivations (self-esteem, reward) can positively predict dropout behaviour (Cervello et al., 2007). Intrinsic motivation also has a positive effect on a player's perceived conflict (e.g., between sport and study). Intrinsic motivation allows an athlete to place value in their involvement (Sellars et al., 2018) and thus intention to practice, and persistence in sport (Guzmán & Kingston, 2012). This is an important consideration given that some groups of athletes report “other things to do” as the main reason for dropping out of their sport (Molinero et al., 2006; Salguero et al., 2003).

Relatedness indicates a sense of mutual caring and connectedness within a group (Deci & Ryan, 2002). Meaningfulness (Baumeister & Vohs, 2002) can also be found in this sense of belonging when part of a group (Jakobsson et al., 2014; Williams et al., 2013). This sense of meaning comes from an athletic identity drawn from the group and presents a motivating factor that supports an athlete’s engagement with the sport (Mudrak, 2010). Within rugby union, it has been observed that if an individual identifies as a rugby player and feels connected to the rugby community, a greater value will be

placed on the sport and a more positive perception of coping with competing demands or perceived conflict (Sellars et al., 2018). This sense of identity is closely associated with an athlete's relatedness to the social aspect of the club (Williams et al., 2013), which forms part of their basic psychological needs.

Enjoyment of sport is also associated with those athletes who persist. Some adolescents suggested that enjoyment was derived from the fun of meeting their peers and the expectation that everyone should participate and develop together (Thedin Jakobsson, 2014; Lagestad & Sørensen, 2018). The enjoyment and satisfaction a player experiences are also influenced by the level of coaching expertise and the appropriateness of practice provided (Sellars, 2018). If the athlete feels their ability is suitably challenged and positively reinforced by the coach, this can support feelings of competence and satisfaction. Interestingly, it was found that level of fitness, weight and gender had no mediating effect on levels of enjoyment in sport (Jakobsson et al., 2014b), however, by the age of 19 years old, enjoyment was more likely to be derived from the challenge of competition than training or participatory factors (Thedin Jakobsson, 2014; Lagestad & Sørensen, 2018). This observation may be helpful when considering a developmental pathway for young athletes to find enjoyment or meaningfulness within their transitioning periods. While enjoyment may be derived from social interaction and participation as adolescents, as they transition toward adulthood competitive challenge is key. It is important that the enjoyment and value they place on the competitive aspect of rugby be nurtured. Coaches can satisfy this need by allowing adequate exposure to on-field game time for all players.

2.3.3 Individual factors

Physical and biological factors

Sports performance depends on execution of physical movements at differing intensities and periods of time. This means that individual physical constraints influence execution and performance. Those involved in a large cross-section of both individual and team sports at nineteen years of age have higher levels of cardiorespiratory fitness (male and female) and are physically taller by 5cm (males only) than those that dropout (Lagestad, 2019). It could be assumed that increased fitness and physical development allows a greater level of sports performance to be achieved. Previous literature has shown an association between low-level performance and increased likelihood of dropout from

sport (Patriksson, 2000), which may give more insight into the role of physical fitness in player performance and dropout. Other research has shown that coaches may offer larger individuals more opportunities to play in team sports, by ascribing greater importance to physical size than technical ability (Helsen et al., 2005), thus limiting the number of opportunities to develop in smaller athletes. This lack of opportunity to participate and progress due to lack of game time, may lead to negative perceptions of participation and increased likelihood of dropout (Sellars et al., 2018).

An adolescent's levels of maturation may also influence their dropout decisions. Relative age effect is a phenomenon in which children born close to a critical age cut-off period (e.g., January 1st for rugby) may have an advantage in athletic pursuits due in part, to increased growth relative to their peers (Kearney, 2017). Past research has found that the older a young person is relative to their peers in the same age-grade or team, the higher the probability of competitive success (Dudink, 1994). This could be due to individual differences in physical and cognitive development as a result some players being almost one year older than their teammates. Delorme et al. (2010) found that relative age effect has two potentially negative influences on sports participation. Children born toward the end of the competitive year tend to disengage in sport and those individuals who do engage are more prone to drop-out in later years.

Early specialization

Engaging in large quantities of structured sport participation in just one sport at an early age is referred to as "early specialization" (Wiersma, 2000). Early specialization may lead the athlete to decide to discontinue, or in some cases develop chronic injury, forcing dropout (Mudrak, 2010). Early specialization can also have a negative impact in the longer term. For example, those that disengage, or dropout later may not have been psychologically capable of dealing with the pressure that accompanied athletic success earlier on and consequentially may have become disillusioned when encountering obstacles such as performance plateaus during later adolescence. It has been suggested that, while starting ages in competitive sport did not differ, those who dropped out demonstrated a clear pattern of early specialization and participated in significantly less unstructured sports time (Fraser-Thomas et al., 2008). Early specialization was also related to the educational practices (level of expertise in athlete-centred support) of an athlete's coach or parent which influenced the athlete's motivation in a way that supported early withdrawal from competitive sport (Williams et al., 2013). The athlete's

intention to withdraw may stem from the pressure of expectation by the parent or coach, particularly if they were a former specialist athlete themselves (Fraser-Thomas et al., 2008). These findings demonstrate that not only that perceived training difficulty can have a negative effect on commitment (Salguero et al. 2003; Koukouris, 2005), also lack of autonomy in the decision to specialize itself.

2.3.4 Social factors

Parent

Parental influence plays an important role in sports participation. Positive parenting in sport is demonstrated, not exclusively through involvement to achieve the child's sporting potential, but also to engage in a positive social experience and develop a range of positive developmental achievements (Harwood & Knight, 2015). Parents provide financial support, provide transport to and from training and competition, and often viewed as an important source of relatedness support to the athlete. Active participants seem to appreciate parental support in the form of positive encouragement and administrative assistance. For inactive participants however, more negative feelings towards the parental relationship were characterized by feelings of detachment and distance (Williams et al., 2013).

In competitive swimmers, a higher number of parents to dropouts had been athletes in their youth at a provincial level or higher. In such cases, unintentional pressure may be placed on the child given the athletic history of the parent (Fraser-Thomas et al., 2008). It is reasonable to assume that this relationship also exists in rugby among other sports. If a parent played reasonably high-level rugby, they may wish to pass on this positive experience to their child. This can be beneficial, as the parent is able to provide support that complements the specific demands of training and competition, experienced in the rugby environment. In some other cases however, this may lead to external motivation to please the parent, rather than enjoyment in the development process and higher risk of dropout. This is highlighted by some athletes admitting that while they were intrinsically motivated in the sport itself, the pressure to achieve through competition was overwhelming and ultimately ended in withdrawal (Mudrak, 2010). To enhance their child's sporting experience and help to avoid disengagement, it is important that parents not only support children's opportunities, but also select the sporting

opportunities that are most appropriate for their children's development (Harwood & Knight, 2015).

Peer

Peer relationships play an important role in youth sports. Peers have been associated with the individual's sense of physical competence, their moral attitudes, and other affective outcomes (Smith, 2003). Those athletes who were currently engaged had a best friend(s) engaged in the same sport more frequently than those who dropped out (Fraser-Thomas et al., 2008).

Engaged athletes in both individual and team sports suggest that a primary reason for enjoyment in their sport is through fellowship and affinity with peers and sharing of the social and competitive experience with like-minded young people (Sellars et al., 2018; Jakobsson et al., 2014; Lindgren et al., 2017). This would suggest that having a positive peer support setting, will add another layer of meaning to an athlete's experience and as such have a positive effect on commitment.

Coach

In the environment of youth sport, the role of the coach strongly influences the structure and quality of the sports experience. Coaches also play an especially influential role in the processes that mediate the development and motivations of the athlete (Smith et al., 2007).

On the surface, athletes who dropout cite lack of one-on-one coaching throughout development (Williams et al., 2013; Fraser-Thomas et al., 2008) or negative coaching behaviours (sternness and authoritarian approach) as an influential factor in their decision (Koukouris, 2005); others cited simply that they did not like the coach (Moliner et al., 2006; Salguero, 2009). If the coach creates a controlling atmosphere and puts their own need for success before the athlete's wellbeing, it negatively affects an athlete's motivational behaviour (Williams et al., 2013).

If the coach adopts a task involved motivational climate (see figure 2.4), this has a positive effect on psychological need satisfaction, self-determined motivation, and sport commitment in the athlete (Lukwu & Luján, 2011). Concerning athlete motivation, those reporting high ego-orientated motivation (i.e., those motivated by external reward, fear of punishment or the approval of others (Deci & Ryan, 2000) and holding low perception of ability), are more likely to drop out of sport (Roberts, 1992). A perception of ego-

oriented sports success criteria in the coach significantly predicted ego orientation in the athlete (Cervelló et al., 2007), thus the coach-created motivational climate can influence an athlete's dropout behaviour to varying degrees. Motivations can also be influenced by understanding the athlete's abilities and challenging them accordingly. If an athlete performs with relative ease of development, a coach must challenge this accordingly. If results are easily achieved and a coach is happy with the results alone, this can undermine the sense of achievement in the athlete and increase the likelihood of dropout (Mudrak, 2010). A table illustrating how coaching behaviours influence a climate that supports or dissuades fulfilment of an athlete's basic psychological needs can be viewed in table 2.3. To address the issue of coaching practices negatively affecting the motivational behaviours and perceptions of ability in an athlete, it is suggested that practical guidelines outlining a positive coach-athlete relationship, that fosters autonomy, competence, and relatedness should be adhered to (Mageau & Vallerand, 2003). These guidelines have been adapted into a seven-question cue card contained in the executive report (appendix 3) with examples in which coaches can use to reflect on their own language and practices, and how they align with basic psychological needs and athlete self-determined motivation as described in figure 2.4.

Table 2.3: Coaching behaviours and their influence on empowerment of basic psychological needs support. *Table adapted from Hodge et al., (2008).

<i>Climate Dimension</i>	<i>Coaching Behaviour</i>
Empowering Dimensions	
Autonomy support	Provides opportunity for learner input Provides Rationale Encourages curiosity Affords meaningful choice Acknowledges feelings/ listens
Task-involving	Task focused competence feedback Recognises improvement and effort
Relatedness support	Adopts a warm communication style Ensures inclusivity Shows concern for learners and their personal interests
Structured	Provides guidance and clear instruction; Offers expectations for learning
Disempowering Dimensions	
Controlling	Controlling language Devalues learners' perspective Uses rewards as motivation Will fall back on intimidation to elicit response
Ego-involving	Punishes mistakes Recognises superior/ inferior ability Encourages intra group rivalry
Relatedness Thwarting	Restricts opportunities for interaction Excludes individuals from certain aspects Demonstrates lack of concern Belittles opinions and performance of learners

2.3.5 Contextual factors

Not all individuals that participate in sport share the same situation, either personally or in relation to their club/ organization. There are certain mediating factors associated with dropout or continued participation that are context specific. The two main contextual factors are ease of access, which include distance to facilities, time constraints and number of opportunities to attend and participate, and other commitments namely academic studies and work constraints. Ease of access to participation in a sport can mediate commitment (Deelen et al., 2018; Sellars et al., 2018; Lindgren et al., 2017). Young people must feel they have the right to participate at a club, regardless of ambition, socioeconomic status, gender, or disability. This aspect of access for all, is important to encourage young athletes to engage and remain at clubs and in the sporting environment (Lindgren et al., 2017). In the case of rugby union, enjoyment and satisfaction is also influenced by access to participation opportunities within not just the club but the team setting, with specific emphasis on competitive game time (Sellars et al., 2018).

Distance from facilities, time constraints and cost have been cited barriers to ease of participation in younger athletes (Ferreira & Armstrong, 2002). It is worth noting that these issues did not feature prominently in the findings of the literature for this review. There were conflicting findings on associations between distance and motivation to participate. The suggestion is that this may be due to the intrinsically motivated attitudes of the individual athletes (Ferreira & Armstrong, 2002). In other words, distance is not a primary factor of dropout once the individual is positively motivated to participate. High-quality and appropriate facilities were also a factor which encouraged individuals to continue at a club. The athletes were appreciative of clean, functional facilities and this factor evoked feelings of satisfaction in their club environment (Lindgren et al., 2017).

Other commitments outside the sporting environment can have an impact on an athlete's motivation to partake and continue in sport (Sellars et al., 2018; Molinero et al., 2006; Salguero et al., 2003). A particularly prevalent competing demand identified in adolescent rugby union was education. Issues such as assignments, exam periods and overall educational commitments had an influence on the amount of time players can afford to participate in rugby. If opportunities to participate and develop are regularly available to a player (e.g., option to attend some elements of training on one of multiple nights) and they place value on their involvement, this in turn may have a positive effect

on the player's perception of those competing demands and commitment to their sport (Sellars et al., 2018). Once again, an individual's motivation to participate rather than the competing demands is the primary mediating factor concerning sport commitment.

2.3.6 Gender differences

While barriers and facilitators affect all young people who seek to participate in sport, associated factors can have differing effects on male and female participants. Some papers show little or no difference between genders in certain variables such as enjoyment, motivations, or perceived conflict (Guzmán & Kingston, 2012; Molinero et al., 2006; Lagestad & Sørensen, 2018). However, it is suggested that females are more likely to cite reasons for dropout as negative perception of pressure, training difficulty, competition, and athletic ability (Molinero et al., 2006; Salguero et al., 2003).

Females who continue to participate specifically described deriving relatedness support from feelings toward the club itself, in much the same way that they did from social agents (coaches and others within the club) and described the club as "familiar" and evoked feelings of "being secure", "belonging" and "acceptance" (Williams et al., 2013). This sense of relatedness may be a factor relating to commitment and burnout in males but plays a less important role than psychological needs associated with autonomy and competence (Hodge et al., 2008).

2.4 Concluding summary

The motives, barriers, and facilitators associated with dropout and continued participation are complex and multi-factorial. These factors do not run parallel and often overlap and merge into concurrent themes. An overlapping theme in athlete commitment or dropout is motivation. The literature suggests that if an individual has their basic psychological needs fulfilled, the individual will value their sport involvement and as such will display an intrinsic motivation to practice, develop and continue. This type of motivation is also associated with enjoyment in their sport, another factor that shares an association with those who continue in sport. While the positive effects of basic psychological needs fulfilment are similar for both male and female athletes, females appear to be more positively influenced by feelings of security, sporting identity and

relatedness within their club. Negative perceptions of pressure, training difficulty and competition, are also more likely to be associated with dropout in females than males.

These factors may be mediated by significant others in an athlete's immediate environment. Coaches, parents, and peers provide a strong influence in an athlete's sporting involvement and development. It is likely that an athlete will adopt a similar motivational attitude to their coach. If a coach fosters an ego orientated motivational climate, a controlling atmosphere, and an emphasis on competitive success over athletic development and wellbeing, the likelihood the athlete will dropout increases. In order to promote player commitment, it is suggested that coaching practices should be player centred, avoid neglecting competitive opportunities for those less physically developed or mature and cultivate a positive coach-athlete relationship, fostering autonomy, competence, and relatedness.

Parents too can have an impact on an athlete's motivations. While some parents can influence dropout behaviours by applying undue pressure to succeed, athletes that are continuously engaged in sport appreciate parental support in the form of positive encouragement and administrative assistance. Positive peer support helps to add meaning to an athlete's experience and as such have a positive effect on commitment. Young people suggest a primary reason for enjoyment in their sport is through fellowship and affinity with peers and sharing of the social and competitive experience.

Organizations should adapt policies to ensure young people feel they have the right to participate at a club, regardless of ambition, socioeconomic status, gender, or disability. Staff should be sensitive to the negative outcomes associated with a lack of equal development opportunities for players. Club facilities should also reflect this, developing a clean safe and appropriate physical environment for its members. If opportunities to participate and develop are regularly available, it is more likely value will be placed on player involvement, which in turn may have a positive effect on the players' perception of those competing demands (education, other sports) and commitment to rugby.

These findings are broad in nature and cover a variety of both individual and team sports. Only two papers directly relate to rugby union. Given its prevalence as an internationally popular team sport, further research in the area of retention in rugby union would certainly be beneficial as there is little research outside the United Kingdom. Further research may add to or align with the current findings. The findings do, however, provide

a framework of issues that will provide an excellent basis to develop a focus group structure that will aid in the investigating and unpacking of deeper issues surrounding dropout in Connacht rugby

Chapter 3

Connacht Rugby player database analysis

3.1 Introduction and aims

Analysing databases can provide valuable information for practitioners working in participation and talent development contexts (Kearney et al., 2020; Kearney & Hayes, 2018; Lewis et al., 2015; Talpey et al., 2016; Baker & Logan, 2007; Richardson et al., 2022). Kearney et al. (2021), conducted an analysis on a United Kingdom athletics database to examine both the prevalence and consequences of within-sport specialization in track and field events. They found that while there was a low prevalence of within-sport specialization among adolescent participants, the majority of participants did not compete across the full range of events, contrary to recommendations set by the United Kingdom Athletics' guidelines. The authors also found no evidence of an association between those participating in multi-events and subsequent retention. This information gleaned from the database analysis could be of value to policy-makers, coach developers and indeed coaches when communicating recommendations for inter-sport and intra-sport specialization during the different stages of athletic development. Connacht Rugby Club and Community maintains a player database containing information on various aspects of player participation which is, until now, unexamined and may contain information that is relevant to player retention.

A number of other variables are worthy candidates for investigation, notably, the number of times a player has appeared in a season and likelihood of retention. There is some research available on the association between number of appearances and intention to continue, suggesting those players who experienced regularly playing in at least half a game report increased levels of enjoyment and intention to continue (Jones et al., 2021). There are other variables associated with appearances in the Connacht rugby database. The database includes which teams an individual appears with; the club team, the school team and those that participate in more than one age-grade. This comes with a caveat; more games mean increased external load and can be considered a form of sport specialization associated with increased risk of injury in youth sport (Field et al., 2018). These variables associated with appearances were analysed to inform of any independent relationship with retention.

The relative age effect is a phenomenon in which children born close to a critical age cut-off period (e.g., January 1st for rugby) may have an advantage in athletic pursuits due, in part, to increased growth relative to their peers (Kearney, 2017). Evidence of relative age effect has been seen in the United Kingdom. A retrospective database

analysis by Cobley and Till (2017) sought to investigate the influence of relative age and participation trends across youth rugby league in the United Kingdom. The authors found that relatively younger adolescents were more likely to cease participation. This analysis provided useful information regarding possible oversight in player selection and differentiation in development policy in the United Kingdom. Relative age effect is not an omnipresent phenomenon and does not occur in all sporting contexts, particularly those sports which almost completely rely on technical ability (van Rossum, 2006). Cobley et al. (2009), found that sports involving adolescent males who compete at regional and national level were more likely to suffer inequality due to relative age effect. Female athletes too are at risk of relative age effect bias, most notably those in early adolescence and involved in regional team sports (Smith et al., 2018). These findings highlight the importance of establishing if relative age bias exists in a cohort prior to investing in strategies to address it.

The exploration of the Connacht rugby player database may provide valuable information on the issues surrounding older adolescent player drop-out and retention within Connacht. The analysis has three aims: firstly, to provide data which will help inform Connacht Rugby Club and Community staff on current policies surrounding player development. Secondly, to inform the drawing up of a convention for best practice in tracking and monitoring player progression. The third aim is to inform the research group on the design of focus groups which seek to investigate stakeholder perspectives of barriers and facilitators to continued participation in club rugby in Connacht. The variables illustrated in figure 3.1 allowed us to ask the data certain questions. First, is there relationship between the number of games played in a year (appearances) and player retention the following year? Second, does playing for multiple teams (both club and school or >1 age-grade) influence retention relative to playing for club only or for school only or for a single age-grade? Third, does relative age influence participation in adolescent rugby in Connacht?

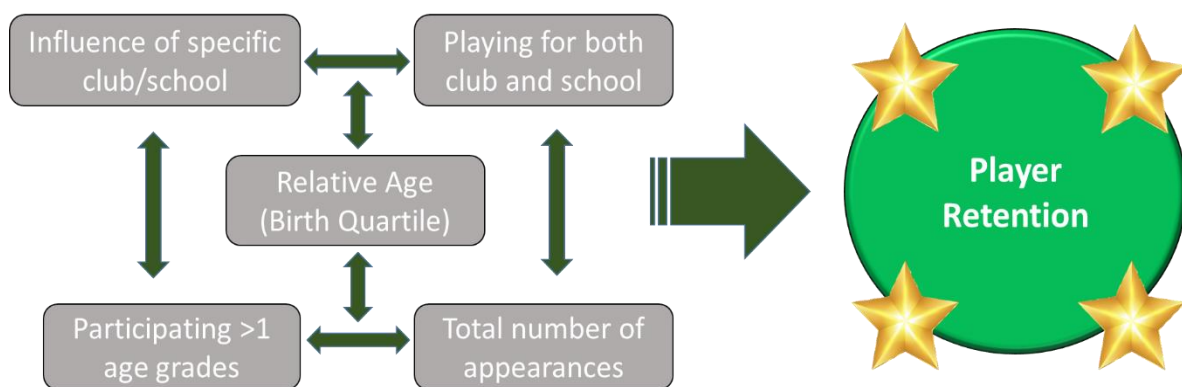


Figure 3.1: Illustration of the variables examined to whether they impacted upon player retention.

3.2 Methods

3.2.1 Data harvesting and distillation

The database provided demographic information on players from U-13 to U-18.5 (the oldest age grade competition in the province). This information included a unique ID number for each registered individual and the total number of competitive appearances for players participating in the region. Total appearances were also separated into specific categories: the type of team an individual appeared in (Club team and/ or school team or in a separate age-grade) and the different type of competitions an individual appeared in (championship and/ or league). In total, 33,733 records from 2015-2019 were downloaded for evaluation. The database maintained by Connacht Rugby Club and Community contains a range of information on each player including IRFU ID number, gender, school and/or club played for, age grade, and appearances. While gender as a variable was included, the completeness of the data for female players was limited to only three clubs and two age-grades. This affected the scope and validity of the analysis of this variable and as such was omitted, meaning all analysis is based on male only players. For relative age analysis, data on distribution of birth quartiles in Ireland from 1996-2005 were accessed through the National Statistics Office website (National Statistics Office, 2005) and used to compare with birth quartile distribution of participants registered in the Connacht Rugby database.

All eighteen individual clubs manually update this player database. This process involves both annual updating of registered players and uploading of match sheets prior to games. Because of this, there is margin for human error. As such, the database was first screened using Excel and harvested data was cleaned, firstly by removing duplicate players and secondly by removing anomalies (a 17 years-old player registered in an U-13 competition). In all, 1.8% of player entries were excluded due to unresolvable errors. Using customised Excel spreadsheets, Player ID numbers were matched across seasons to determine whether players continued participating or dropped out of rugby.

3.2.2 Analysis

The cleaned data files were uploaded to SPSS v26 analysis software where statistical analysis was conducted. Mann Whitney U tests compared appearances between players who were retained and those who dropped out for each age group and year. Chi-squared tests, or Fisher's Exact Tests (in the event of low expected numbers (Kim, 2017)) were used to evaluate the association between player retention and player participation characteristics (e.g., playing for multiple teams, relative age quartile). The significance level was set at $p = 0.05$.

3.3 Results

3.3.1 Is there a relationship between the number of games played in a year (appearances) and player retention the following year?

Figure 3.2 indicates that the higher number of appearances an individual records, the more likely they are to be retained the following year. Although the numbers vary across years, perhaps due to incompleteness of recording of appearances, the trend is consistent. A table containing median appearances and total number of players across all clubs for each year can be viewed in the database executive report at appendix 4.

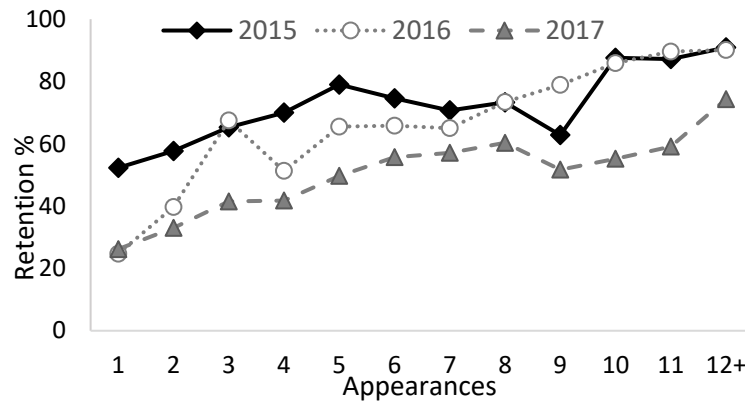


Figure 3.2: Illustrates the relationship between median number of appearances and the likelihood of retention the subsequent year.

A more detailed comparison of the association between median number of appearances and retention for the exemplar year 2016, can be seen in figure 3.3. Across age grades and seasons, players who were retained were consistently found to have a significantly higher number of median appearances than those who became unlisted (i.e., no appearances that year); u-13: $Z(N_{\text{unlisted}}=55, N_{\text{retained}}=273) = -2.871, p = 0.004$; u-14: $Z(N_{\text{unlisted}}=63, N_{\text{retained}}=344) = -6.732, p < 0.001$; u-15: $Z(N_{\text{unlisted}}=81, N_{\text{retained}}=273) = -6.792, p < 0.001$; u-16: $Z(N_{\text{unlisted}}=76, N_{\text{retained}}=283) = -8.079, p < 0.001$; u-17: $Z(N_{\text{unlisted}}=80, N_{\text{retained}}=190) = -7.313, p < 0.001$; u-18.5: $Z(N_{\text{unlisted}}=284, N_{\text{retained}}=249) = -7.733, p < 0.001$. Graphs and figures for all years can be seen in the executive report issued to Connacht Rugby Club and Community (appendix 4).

The pattern of individuals who are retained recording more appearances is echoed in longer term retention. Those players who record a higher number of median appearances are more likely to be retained even after 2 and 3 years. Figure 3.4 illustrates that players who were still playing in 2018/19 typically made between 2-4 more appearances in 2016/17 than those who were not retained 2 years later; u-13: $Z(N_{\text{unlisted}}=112, N_{\text{retained}}=224) = -3.980, p = < 0.000$; u-14: $Z(N_{\text{unlisted}}=123, N_{\text{retained}}=294) = -6.259, p = < 0.000$; u-15: $Z(N_{\text{unlisted}}=145, N_{\text{retained}}=186) = -6.372, p = < 0.000$; u-16: $Z(N_{\text{unlisted}}=144, N_{\text{retained}}=233) = -6.008, p = < 0.000$; u-17: $Z(N_{\text{unlisted}}=156, N_{\text{retained}}=1126) = -5.031, p = < 0.000$; u-18.5: $Z(N_{\text{unlisted}}=372, N_{\text{retained}}=181) = -5.508, p = < 0.000$. In figure 3.5, the trend of higher appearance numbers and retention is continued from 2015 to 3 years later for the majority of age groups; u-13: $Z(N_{\text{unlisted}}=143, N_{\text{retained}}=269) = -2.006, p = < 0.045$; u-14: $Z(N_{\text{unlisted}}=165, N_{\text{retained}}=154) = -4.600, p = < 0.000$; u-15: $Z(N_{\text{unlisted}}=140, N_{\text{retained}}=211) = -4.980, p = < 0.000$; u-16: $Z(N_{\text{unlisted}}=242, N_{\text{retained}}=153) = -1.987, p = < 0.047$; u-17: $Z(N_{\text{unlisted}}=181, N_{\text{retained}}=70) = -3.936, p = < 0.000$; u-18.5: $Z(N_{\text{unlisted}}=176, N_{\text{retained}}=61) = -0.178, p = < 0.859$.

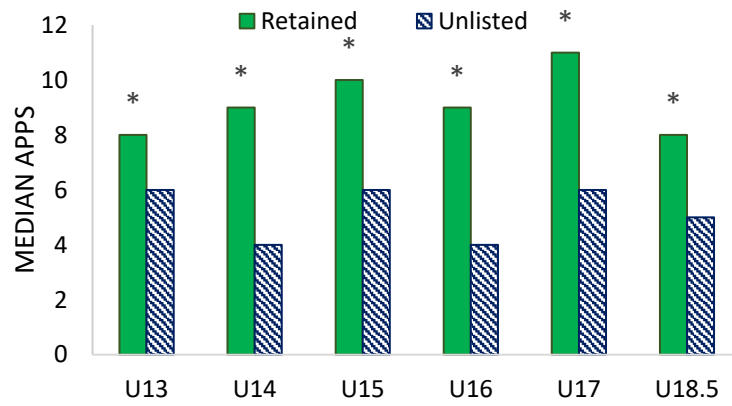


Figure 3.3: Appearances in 2016 and retention the following year (+1).
*Denotes statistical significance $p < 0.05$ (Mann-Whitney U test)

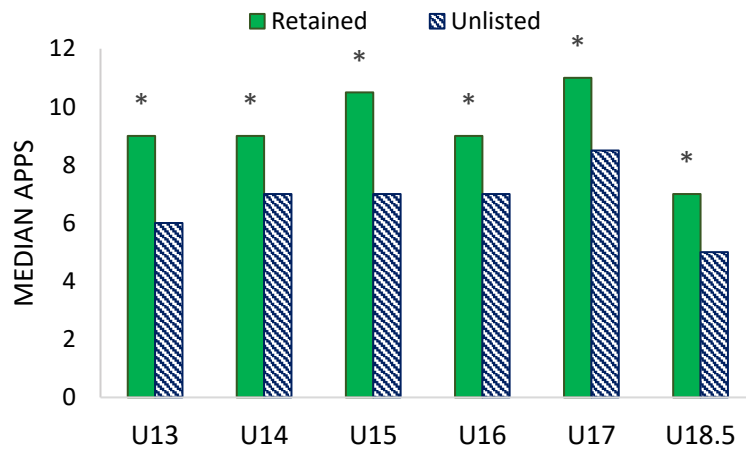


Figure 3.4: Appearances in 2016 and retention 2 years later (+2)
*Denotes statistical significance $p < 0.05$ (Mann-Whitney U test)

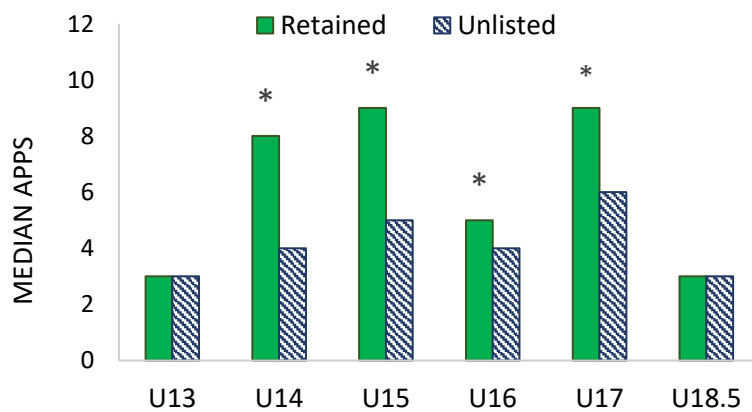


Figure 3.5: Appearances in 2015 and retention 3 years later (+3)
*Denotes statistical significance $p < 0.05$ (Mann-Whitney U test)

3.3.2 Does playing for multiple teams (both club and school or >1 age-grade) influence retention relative to playing for club only, or for school only?

Playing for both school and club had a positive influence on retention relative to playing for club only, or for school only. Playing for both club *and* school increased the likelihood of being retained both 1- and 2-years later compared to individuals who only played for a single venue: U16, Exemplar data from 2017 is provided below. Graphs for all U-16 data (figure 3.6) regarding playing venue and retention illustrates that "School only" players are less likely to be retained (49.5%) and more likely to be unlisted (50.5%) than expected, while "Club and school" players are less likely to be unlisted (11.1%) and more likely to be retained (88.9%) than expected; $X^2(2, N=618)=55.794$, $w=.300$, $p<0.001$.

While there were no individuals in the U-17 age-grade (figure 3.7) playing school only, those who played for both were more likely (94.9%) to be still playing one year later than those who played for school only (52%); $X^2(1, N=314)=34.248$, $w=.330$, $p<0.001$.

U-18.5 (figure 3.8) follow the U-16 trend toward retention with players more likely to be retained the following year if an individual played for school and club (67.7%) compared to playing for school only (38.9%); $X^2(2, N=600)=18.028$, $w=.173$, $p<0.001$.

Longer term retention trends (+ 2 years) illustrate that playing for both school and club in 2016 increased the likelihood that an individual will continue to participate in subsequent seasons. U-16+2 (figure 3.9) retention by playing venue, echoing the trend, has been observed after +1 year. Players are more likely to continue participation when playing for both school and club (89% retention) than school only (59.6% retention) or club only (53.2% retention); $X^2(2, N=377)=33.567$, $w=.298$, $p<0.001$.

Again, no individuals play school only at the U-17 age-grade (figure 3.10). Those who played at both venues were more likely to continue (72.7% retention) than those who played club only, who were more likely to be unlisted (59%) and less likely to be retained (41%) after 2 years; $X^2(1, N=282)=11.894$, $w=.205$, $p<0.001$.

U-18.5 age-grade (figure 3.11) illustrates the positive effect of playing for both school and club (51.5% retention). "Club only" players (35.4%) and "School only" players (25.4%) are less likely to be retained after 2 years; $X^2(2, N=553)=17.835, w=.180, p<0.001$.

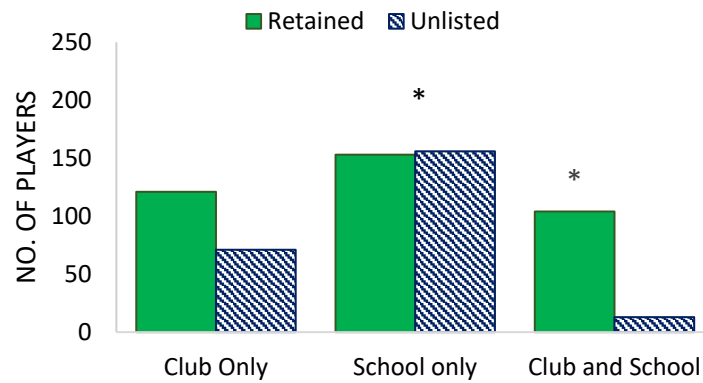


Figure 3.6: 2017 U-16 retention by playing venue
*Denotes statistical significance $p<0.05$ (Chi-squared test)

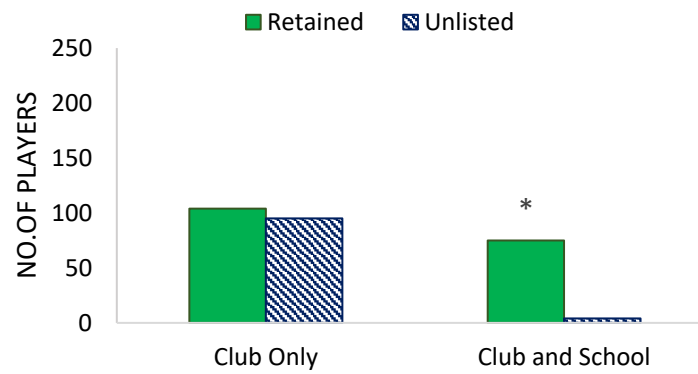


Figure 3.7: 2017 U-17 retention by playing venue
*Denotes statistical significance $p<0.05$ (Chi-squared test)

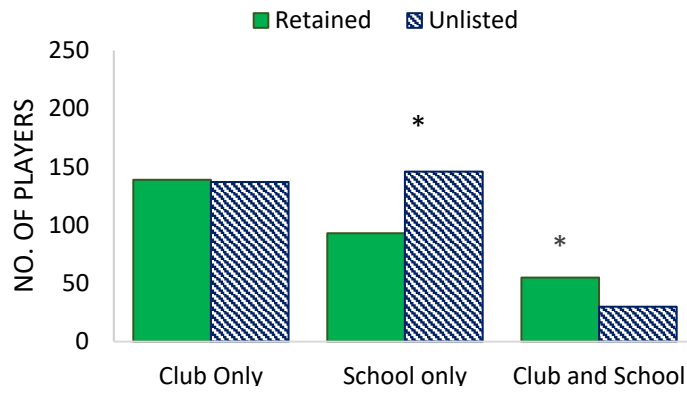


Figure 3.8: 2017 U-18.5 retention by playing venue
 *Denotes statistical significance $p < 0.05$ (Chi-squared test)

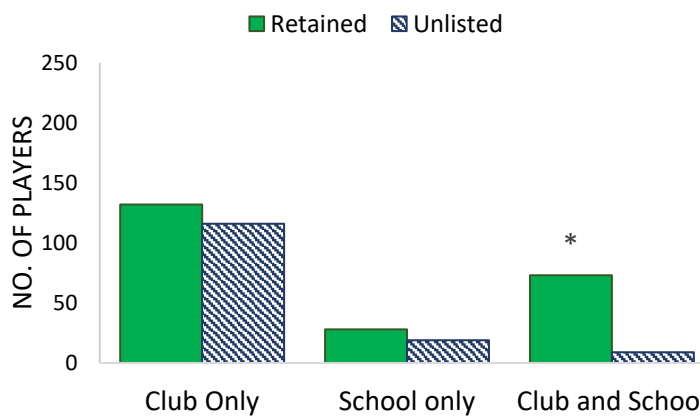


Figure 3.9: 2016 U-16 retention by playing venue after 2 years (+2). *Denotes statistical significance $p < 0.05$ (Chi-squared test)

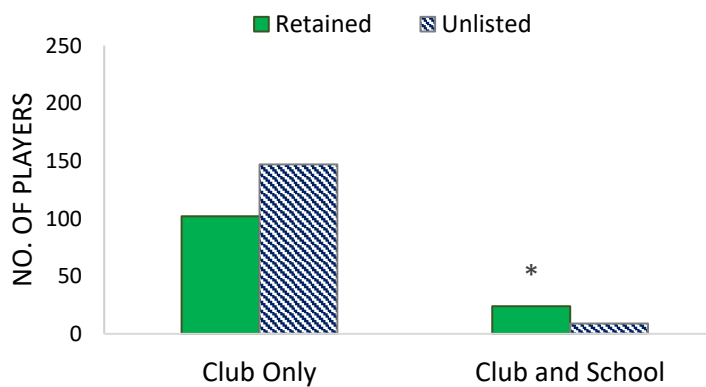


Figure 3.10: 2016 U-17 retention by playing venue after 2 years (+2). *Denotes statistical significance $p < 0.05$ (Chi-squared test)

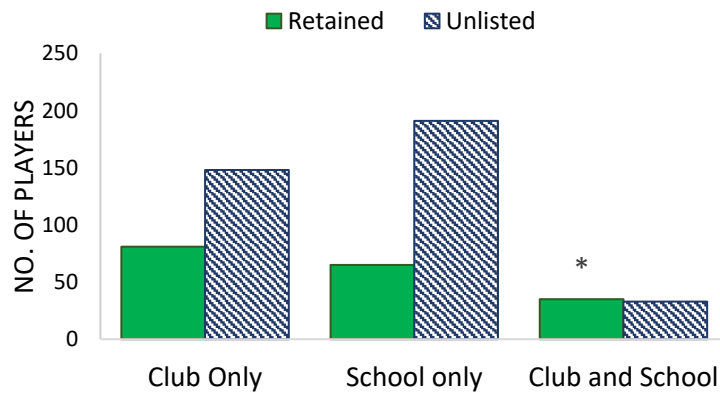


Figure 3.11: 2016 U-18.5 retention by playing venue after 2 years (+2). *Denotes statistical significance $p < 0.05$ (Chi-squared test)

Playing across multiple age-grades also increases likelihood of subsequent retention. Once again 2017 data is being used as the exemplar year to illustrate the relationship between playing more than 1 age grade and retention. U-13 data (figure 3.12) regarding multi age-grade appearances and retention illustrates, as may be expected, that there is only a small proportion playing above their age grade (8.5%) and doing so does not influence the likelihood of retention compared to playing in one age grade; $X^2(1, N=319)=0.570, w=.042, p < 0.450$.

In the U-14 data (figure 3.13) a similar portion of players are participating in more than one age grade (9.8%). There is high retention for all players, however the chances of retention in those individuals that played more than one age grade (91%) is significantly better than those that played only in one (72.8%); $X^2(1, N=448)=6.880, w=.124, p < 0.009$

Data for all other age-grades follow a similar trend. U-15, U-16, U-17 age-grades in 2017 show that those individuals that play more than one age grade are significantly more likely to be retained than those that played only one age-grade. These data, both graphs and tables can be viewed in the executive report at appendix 4.

Data for 2016 retention after two years (+2) indicates a similar trend. Figure 3.14 shows U-15s that played in more than one age grade, were still more likely to be retained two years later (79.7%), than those that played in one, who were more likely to be unlisted after two years (49.4%); $X^2(1, N=331)=21.448, w=.331, p < 0.000$

In 2016+2 U16 and U17 retention data, players who appeared in more than one age grade were still much more likely to be retained after two years than those who played in a single age grade. These graphs can be viewed in the executive report at appendix 4.

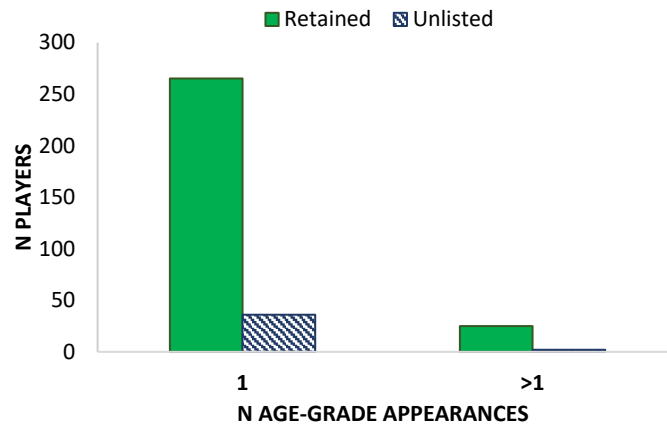


Figure 3.12: 2017 U-13 multi age-grade retention.
 *Denotes statistical significance $p < 0.05$ (Chi-squared test)

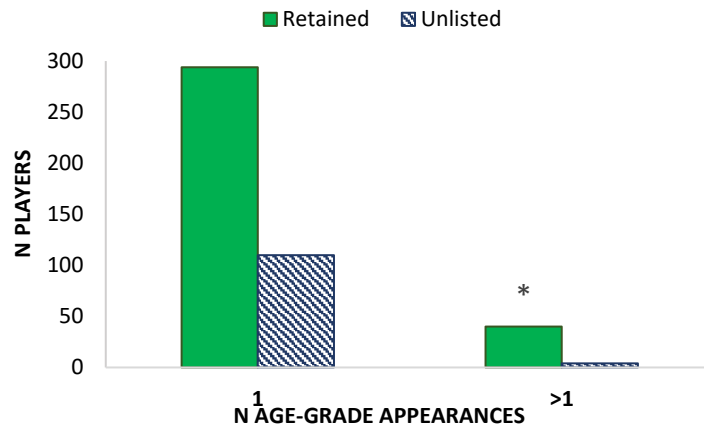


Figure 3.13: 2017 U-14 multi age-grade retention.
 *Denotes statistical significance $p < 0.05$ (Chi-squared test)

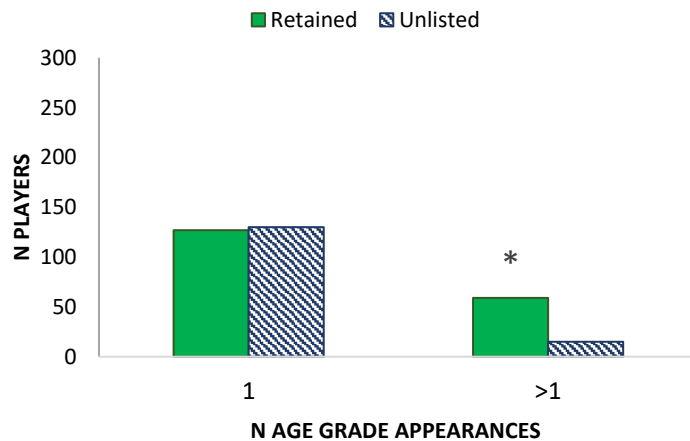


Figure 3.14: 2016 U-15 multi age-grade retention after 2 years. *Denotes statistical significance $p < 0.05$ (Chi-squared test)

3.3.3 Does relative age influence participation in adolescent rugby in Connacht?

Figure 3.15 shows the proportion of players born in each quarter of the year for the age grades U13 to U17 in the 2017 season; u-13 $X^2(3, N=317)=3.814, w=.110, p < 0.282$; u-14 $X^2(3, N=431)=0.764, w=.420, p < 0.858$; u-15 $X^2(3, N=421)=2.028, w=.070, p < 0.567$; u-16 $X^2(3, N=375)=3.688, w=.099, p < 0.297$; u-17 $X^2(3, N=314)=3.572, w=.106, p < 0.317$. This variation in birth quartile is also apparent for the 2015 and 2016 seasons. These graphs can be viewed in the executive report at appendix 14. The distribution of participant birth quartiles is similarly distributed to national birth quartiles for the years 1996-2005 (figure 3.16). The variation observed is within the bounds of that expected by chance. These results suggest no bias toward those born in any one quartile within the general playing population.

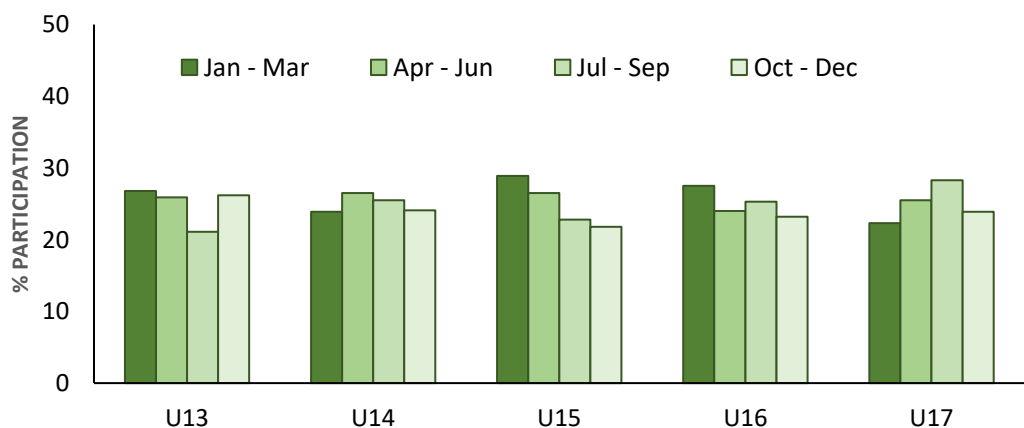


Figure 3.15: 2017 participant birth quartiles. U-18.5 male data is not considered due to 18-month window.

Figure 3.16 compares of the average national birth quartiles for 1996-2005 sourced from the National Statistics Office, (2005) and the average birth quartiles for adolescent club rugby players in Connacht from 2015-2019. Note that distribution is almost identical and is a true reflection. This pattern indicates that Connacht rugby clubs are allowing equal opportunity, regardless of relative age.

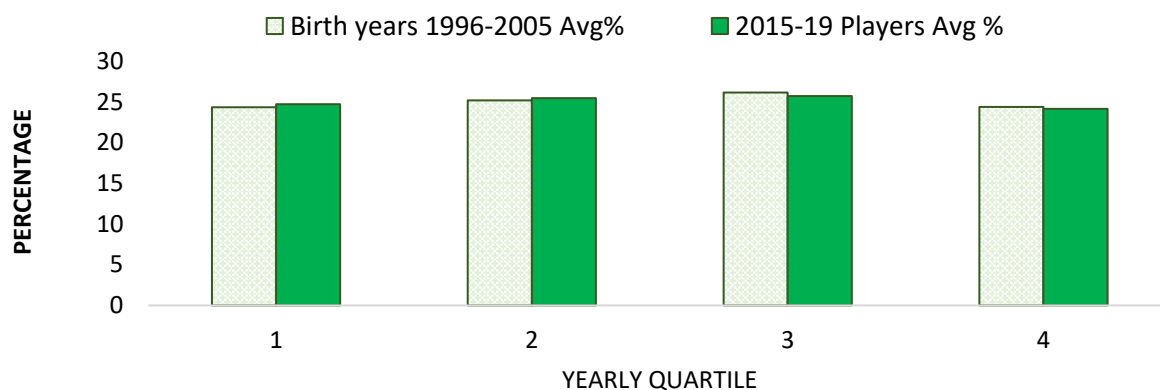


Figure 3.16: Comparison of the average national birth quartiles for 1996-2005 to average birth quartiles for club rugby players in Connacht from 2015-2019.

Although relative age might not influence club membership, it may have a subtle influence in that relatively older players might make more appearances. Table 3.17 shows median appearances for each birth quartile in each age grade respectively in 2017. It clearly shows no bias towards relatively older players in any age-grade. Tables for 2015 and 2016 also show no bias can be viewed in the executive report at appendix 4.

Table 3.17: Distribution of median appearances for all quartiles in 2017 show no obvious pattern of bias toward third and fourth quartiles.

2017	Jan - Mar		Apr - Jun		Jul - Sep		Oct - Dec	
	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances
U13	26.8%	8	25.9%	8	21.1%	9	26.2%	8
U14	23.9%	9	26.5%	8	25.5%	7	24.1%	7
U15	28.9%	8	26.5%	9	22.8%	9	21.8%	8
U16	27.5%	8	24.0%	9	25.3%	7	23.2%	9
U17	22.3%	10	25.5%	11	28.3%	9	23.9%	9

3.4 Discussion: Lessons learned from the database analysis

There were three aims to the database analysis: firstly, to provide data which will help inform Connacht Rugby Club and Community staff on current policies surrounding player development. Secondly, to inform on the drawing up of a convention for best practice in tracking and monitoring player progression. The third aim is to help inform the research group on the design of focus groups which seek to investigate stakeholder perspectives of barriers and facilitators to continued participation in club rugby in Connacht. This was achieved by analysing the variables that exist on the Connacht rugby player database. Principal findings from the analysis suggest the greater number of appearances a player records, the greater likelihood of retention. Playing for both school and club has a positive influence on continued club rugby participation. Playing more than one age grade has a positive influence on 1- and 2-year retention in adolescents. Relative age (birth quartile) has no influence on participation or number of appearances in club rugby in Connacht.

The greater number of appearances a player records, the greater likelihood of retention. While this relationship exists and there is a possibility that more appearances definitively increase the likelihood of retention, it cannot be explicitly stated that appearances alone cause an increase in retention. That being said, it is an important consideration to support all players achieving multiple appearances. Even modest increases in appearances (2-4 games) seems increase players' likelihood of retention. This finding agrees with Jones et al. (2017) in suggesting that greater opportunity to participate may increase likelihood of intention to continue in adolescents in rugby. Further qualitative investigation into the specific perceptions of stakeholders in Connacht may shed more light on this relationship.

Playing for both school and club had a positive influence on continued club rugby participation. This finding also may suggest that more opportunities for game time has a positive influence on retention or perhaps different environments have a particular influence on a player's enjoyment and motivation. Nevertheless, consideration should be given to reviewing efforts to encourage players participating in schools' rugby who are not affiliated with a club to become affiliated with a club, and for players who focus solely on schools' rugby during certain age grades (e.g., U16, U18.5) to maintain club affiliation. Playing more than one age grade has a positive influence on 1- and 2-year retention in adolescents. While relatively few players compete across age grades during early adolescence, this question becomes more important at U16 and U17. Due to a

variety of factors including maturation, interest, and player numbers, playing multiple age grades is not suitable for all players. However, given the apparent positive influence of playing up an age grade, Connacht Rugby Club and Community should reflect upon what other avenues might be explored to help all players at late adolescence in particular, to more clearly see the pathway ahead of them and to encounter role models for their development. While there is no evidence of these specific factors associated with retention in the available literature, they do offer players more time to develop skills competency through competitive practice and enhance likelihood of retention. This idea of skill development through competitive practice was investigated by Talpy et al. (2016). In an analysis of a cricket database the authors found that significant participation-based factors such as innings batted and overs bowled, led to retention. The authors suggest that allowing sufficient opportunity to participate leads to skills competence and increased likelihood of retention.

Relative age (birth quartile) has no influence on participation or number of appearances in club rugby in Connacht. Given the well-established influence of relative age on general participation in rugby union in Wales (Morgan & Cooper, 2015), England (Kelly et al., 2021) and rugby league in the United Kingdom (Cobley & Till, 2017), the absence of relative age effects in Connacht is a positive finding. While this may be due to the pool of players available to each club, Connacht Rugby Club and Community should continue with current practices related to relative age and participation at the grassroots level.

3.5 Limitations

Three principal limitations should be considered in this database analysis. Data referring to “appearances”, data associated with female players, and long-term data collection. “Appearances” refer to names listed on team-sheets and may not reflect actual “game time”. While playing time would be a more complete measure of a player’s involvement within rugby, the finding that team sheet appearances were still related to retention justifies their value as a measure. While recording actual game time for players may prove to be troublesome from a logistical perspective, it would be hugely beneficial when assessing the association between meaningful game time and retention. The data may also be a useful resource for coaches when assessing players’ contributions and time on the pitch.

Female data is limited to very few clubs and only two age grades. There were insufficient numbers to complete inferential statistical analyses on the majority of the female data. The low level of participation in the female game, alongside unreliable uploaded data effects the trustworthiness of any analysis and as such was omitted. However, with the continued growth of the female game, careful attention should be afforded to accurate and complete data collection to facilitate analysis of relevant trends which might guide this further growth.

The data covers short term (1- and 2-year) trends. It is possible that factors which facilitate retention in the short term (e.g., playing multiple age grades; playing on both school and club teams) may have weaker or even negative longer-term influences due to training load (Field et al., 2018). There is currently insufficient data to understand these longer-term consequences. As the database grows, Connacht should explore whether longer term trends are consistent with the findings reported for short term effects on player retention.

3.5 Conclusion

The Connacht Rugby player database provides unique data on player involvement. While this analysis explores some of the possible variables associated with retention over three seasons, data collected over a longer period would be beneficial to record changing trends in participation numbers and continuation into adulthood. The analysis does indicate that playing more rugby does increase likelihood of retention in Connacht at least in the short and medium term and compliments existing research (Jones et al., 2021). Absence of relative age effect is a positive finding for Connacht, why this is the case is unclear. Future research may be worthwhile investigating why this is the case in club rugby in Connacht. In relation to future focus groups, the database analysis has established baseline data against which stakeholder perceptions may be interpreted and has generated data which may be used as prompts within stakeholder focus groups.

Chapter 4

Barriers and facilitators to continued participation in club rugby in Connacht in 16-20-year-olds: Stakeholders' perspectives

4.1 Introduction:

Sports participation can play a crucial role in the growth of children and adolescents, particularly in the areas of physical and psychological development (Janssen & LeBlanc, 2010). There are also benefits associated with social skill development, particularly within team sports (Eime et al., 2013). Therefore, it is important to strive to keep young people involved in sport throughout their adolescence to provide a healthy base for gaining competencies to take into adulthood (Hamilton & Hamilton, 2004). According to Lunn and Kelly (2019), dropout from rugby in Ireland is most severe between the ages of sixteen and twenty years of age. While they suggest that this may be a consequence of key transitioning periods during adolescence (primary/ post-primary school/ third level), a busier lifestyle and changing social networks, it is not certain. The data does imply that the issue arising is not uptake of the sport; rather it is striving to prevent those that participate from dropping out during adolescence. Recent reviews on dropout and retention in youth sport suggest that lack of enjoyment, negative perceptions of competence, social pressure and competing demands are associated with dropout (Crane & Temple, 2015) and sense of autonomy, positive perceptions of competence, relatedness, and task-orientated motivational climate are associated with retention (Balish et al., 2014). More specifically in rugby, Sellers et al. (2018), found that those players who placed value in their participation were more likely to continue in rugby. This perceived value was underpinned by enjoyment and satisfaction afforded by opportunities to participate, quality of coaching, peer relationships and a sense of identity as a rugby player. While this research gives valuable insight into retention in rugby, its findings cannot be taken for granted as applicable in the same context as the west of Ireland. Unique cultural differences exist in the sporting landscape between the UK and Ireland, most notably, the dominance of GAA sporting codes of hurling and football. The density of GAA facilities and the tradition of its link to local community (Lane et al., 2016) provides a unique landscape when considering context-specific factors that may influence participation in other competing sports in Ireland. Currently there is a lack of research in Ireland exploring the specific factors that may contribute to drop-out in youth rugby in an Irish context that may shed further light on this phenomenon. Thus, the primary aim of this study was to investigate stakeholders' perceptions of the barriers and facilitators to continued participation in club rugby in Connacht. Findings from the focus groups will be used to inform on current and future actions regarding implementation of policy on player welfare and retention.

4.2 Methodology:

4.2.1: Research design and philosophical standpoint

A qualitative approach was deemed the most appropriate means to investigate the complex nature of our research question, in particular, due to the human interactions and socially generated meanings that underpin sporting participation (Brustad, 2009). They suggest that sport itself is a human endeavour, based in human interaction and socially generated meanings. In this study, we sought to explore and understand the broader experiences of various stakeholders and more specifically perspectives to barriers and facilitators to continued participation in club rugby in Connacht. Qualitative methods are an appropriate strategy to understand not only these experiences but also attitudes, behaviours, beliefs, and interactions of people in this contextual setting (Flick, 2004; Pathak et al., 2013). Using this approach helps gain valuable insight in understanding our research question through these peoples' experiences.

A qualitative approach to the research question is only as effective as its methodological application. The blueprint for my qualitative approach and selection of procedures were guided by my own philosophical assumptions (Morrow, 2005). Recognition of my standpoint is alluded to in the research question where it states: "stakeholders' perspectives". Put another way, how do stakeholders, based on their own experience and understanding see the issues being addressed, and what meaning do they draw from these issues. In my role as the researcher and focus group moderator, it is up to me to try to understand their perspectives drawn from their lived reality. Therefore, my role in the process is implicit, as I interpret their lived reality and seek to give it meaning in the context of my research. In short, I approached the research from an interpretivist standpoint. Interpretivism is grounded in the relativist ontological standpoint; reality is given meaning through socially constructed interaction (Ritchie and Lewis, 2003). Bernstein (1976) summarized that an interpretivist examines the process of meaning, derived from individuals' actions and social interactions. In line with this, I too believe that reality is relative to the lived experience, and their truth is subjective to that experience. Given that interpretivism is person centred, it allows me to unpack different personal perspectives (truths) around specific issues. Lin (1998) explains it more succinctly when they suggest that an interpretivist seeks not only the presence or the absence of a causal relationship, but seek specific context, looking deeper than what has happened, seeking out how it has happened. It is my aim to place myself in a

participant's shoes, understand their feelings toward their experience and reconstruct their self-understanding in a meaningful way (Schutz, 1967).

4.2.2 Participants

To get the perspectives of those that matter, the Connacht Rugby player retention project focused on recruiting those individuals directly involved in youth and adult rugby in Connacht. The research team sought to get the perspectives of those involved in the provision of youth and adult rugby at grassroots level. Criteria for stakeholder selection were that an individual must be in direct contact with coaching staff and players. All participants were required to have at least 3 years' experience in their respective roles. Initial participant recruitment was conducted via a recruitment letter (appendix 5), which was circulated by a gatekeeper in Connacht Rugby branch. Each focus group represented a specific cohort of stakeholders invested in club rugby in Connacht. The rationale was that although the participants in each focus group may hold similar roles, their experiences and attitudes may differ, providing the desired heterogeneity of perspectives. Cohorts required were male and female coaches, games development officers, parents and youth and adult players both male and female. In total, 30 individuals participated across eight focus groups. A breakdown of each focus group cohort criteria including number of participants can be seen below in table 4.1.

Table 4.1: Breakdown of selected cohorts and number of participants

Stakeholder cohort focus group	Participant no.
Current players (male) aged 16-19 years' old, ≥3 years playing experience.	4
Current players (female) aged 16-19 years' old, ≥3 years playing experience.	4
Current players (male) aged 21-24 years' old who played from at least the age of 16 years.	3
Current players (female) aged 21-24 years' old who played from at least the age of 16 years.	4
Parents of current players (male and female) aged 16-19 years' old	4
Male coaches (of male and female teams) operating during the 16-19 years' window, ≥ 5 years' experience.	4
Female coaches (female teams) operating during the 16-19 years' window, ≥ 5 years' experience.	2
Regional development officers with remit including 16-19 years' window, ≥ 5 years' experience	5

4.2.3 On-line focus groups and preparation

Focus groups, while having been largely used in the market research sector, are a well-established, valuable, and widely used method of data collection in applied social research (Acocella, 2012; Braun, Clarke & Gray, 2017) and are a developmentally effective and fun method to use with young people (Gibson, 2007). The distinguishing aspect of using focus groups for data collection is the explicit use of group interaction, helping to generate deeper insight and context to a given topic (Jones et al., 2013). On-line focus groups have been acknowledged as a variation of the standard focus group as opposed to a completely new process (Stancanelli, 2010; Watson et al., 2006). Prior to the main body of focus groups used for this study, four pilot focus groups were conducted and analysed. An executive summary of pilot focus group findings can be viewed at appendix 7. The aim of these pilot focus groups was to gain experience in focus group moderation, to estimate ideal participant numbers, give insight into possible pitfalls in overall structure (recruitment, running the focus group on-line) and general observations to help guide the data collection in earnest. A presentation on learnings from these pilot groups was given to the supervisory team. In the pilot groups a supervisor acted as a field note taker and provided the moderator (me) feedback at the end of each focus group. Feedback included advice on focus group script, the appropriate use of open-ended questions, unnecessary chat or over explanation by the moderator and guiding participant insights (participant discourse can meander from the topic in question). One of the principal learnings from the pilot focus groups was that the number of participants had influence on the depth of individual insights. A group with eight 16-years old male players proved too many, with voices being lost and topics lacked richness of perspective. The effectiveness of even groups of six to generate in-depth insight into relevant topics was attenuated, due in part to dominant voices and time constraints. It was agreed that the on-line format and the complex nature of the inquiry, two to five people per group seemed to produce richer data. This falls in line with advice from the literature on recommended participant numbers in focus groups on complex topics (Morgan, 1998; Bloodworth & McNamee, 2010).

Once suitable participants were identified, research data consent, research privacy notice and where applicable, parental consent was forwarded to participants. With consent confirmed, participants were invited to a meeting in MS Teams at an agreed time and date. An advance contact email was sent to all attending the focus group with relevant information documents. These attachments included volunteer information sheet

(appendix 6) and focus group outline (appendix 8) presentation. These were intended to bring each participant up to speed on the “purpose of the focus group”, overall structure of the session, outline of the broader research and detail some navigation tips for the Microsoft Teams dashboard (comment box, hand up button etc.). After round table discussions with colleagues who had previous experience using on-line focus groups, it was recommended the meeting room be opened an hour in advance of the allocated start time to allow participants log in at their leisure and if any problems arose could contact the researcher. The pilot focus groups highlighted the importance of a field note taker alongside the mediator. While the mediator utilized a table of names and questions to check all participants addressed each conversation topic, the field note taker summarized in shorthand each participant response to relay back at the end of each section of the discussion. This allowed all participants to corroborate opinions and add any relevant details or perspectives that had not already been covered (Guba & Lincoln, 1994). The structure of the focus groups is detailed in the focus group structure document seen in appendix 9. A sample of a focus group script, the specific questions and prompts adopted to aid our inquiry can be seen in appendix 10.

4.2.4: *Data analysis:*

The method of data analysis that best suited the needs of this research was thematic analysis (Braun & Clarke, 2006; 2012; 2013). Thematic analysis is a method rather than a methodology (Braun & Clarke, 2013), as it is not tied to a particular theoretical framework. This freedom allows for a level of flexibility in its application (Maguire & Delahunt, 2017) and helps to gain a more inductive approach to data collection.

Braun and Clarke (2006; 2012; 2013) outline a six-step model for thematic analysis. While presented as linear steps, this is not the case in the data analysis process. Rather it is an iterative process, encouraging the researcher to be reflexive in their thought process going both forward and backwards in their interpretation of data as the process becomes more refined. The interaction between the researcher and the data helps construct themes through a process of interpretation (Garratt, 2013). It is important to note that the themes do not simply emerge from the data; the step- by-step analysis outlined assists in drawing together pieces of the puzzle as themes are developed (Braun et al., 2016).

The first step of thematic analysis is familiarization (Braun & Clarke, 2006; 2013). This is an immersive endeavour where I became familiar with the data, firstly by transcribing

the dialogue, which is not just referring to the transcribing of words but the initial act of interpretation through writing and note taking (Bird, 2005; Lapadat & Lindsay, 1999). I also practiced listening to the recordings and reading and re-reading the transcripts and taking notes. In doing this I was encouraged not to only read the data but to analysis it, asking ‘what’, ‘how’, and ‘why’ questions, helping develop a more critical engagement with the data (Braun et al., 2016).

The next step was coding the data. All coding was conducted through NVivo 12 software. This involved highlighting and labelling data segments deemed relevant to the research question. The coding work was an open and organic process, and codes were open to refinement (Braun et al., 2016). Step three to five were based on theme development. A quote or meaning unit was coded; this code was in turn added to similar codes, distilling the coded data into themes. Following Braun & Clarke’s (2012) direction, codes and areas of similarity were clustered, reviewed and organized with other codes that share broader commonality or overlap. While some codes can be interpreted as an explicitly stated idea (e.g., “I like the physicality of rugby”), it is important to unpack what this physicality means to the various participants, thereby developing a latent theme around what stakeholders in Connacht feel this physicality looks like and what it means to them (Braun et al., 2016). A supervisor acted as a ‘critical friend’ to question and assess my coding, helping further refine theme labelling and thematic construction (Braun & Clarke, 2016). This process helped in defining answers to the research question, capturing recurrent themes from various perspectives, which helped the development of broader dimensions. This involves a balance of descriptive analysis and a more critical, conceptual, and analytical analysis (Braun & Clarke (2013). This idea of latent or implicit themes becomes clearer during the final phase of writing up resultant findings. As an example, initially the dimension “love of the game” comprising of three themes (physicality, respect, and bond) was titled “the game itself” and comprised four themes (physicality, respect, bond, and love for the game). During a review of the data analysis progress with supervisors acting as critical friend, the theme of “love for the game” contained in the dimension “the game itself” was considered a consequence of the three other themes of physicality, respect, and bond. As such, “love of the game” became a concurrent and not an independent theme, refining the dimension to three themes and renaming it “love of the game” as the associated dimension.

4.2.5: *Research quality and rigor*

It is important that qualitative approaches to research provide transparency in the reporting of data collection, analysis, and ethical procedures through honest communication of researcher perspectives and the influence they may have on the research process (Levitt et al., 2018). This is alluded to by Husserl (1932), where they suggest the researcher become aware of their own implicit biases, acknowledge them, and account for them when conducting research, as ignoring them is an impossibility. My own background is not based in rugby, having never played competitively or been involved in any rugby club. I do have a background in sport and sports coaching and with that comes certain predispositions and ideals. I am aware of this however, and rather than push this fact away I acknowledge that I may see things through that lens. That does not mean I do; rather that I am self-aware in that respect and hold myself to account as I understand I am intrinsically linked to the data. I also looked to peer researchers to hold me to account in the guise of “critical friend” to assess if my lens was diluting the thoroughness of the data collection analysis (Gerardi, 2007). I also employ reflection and reflexivity at all aspects of my involvement be it my assumptions, my data collection, or my analysis (Braun & Clarke, 2019). Example reflective notes and essays can be seen in appendix 11 and 12.

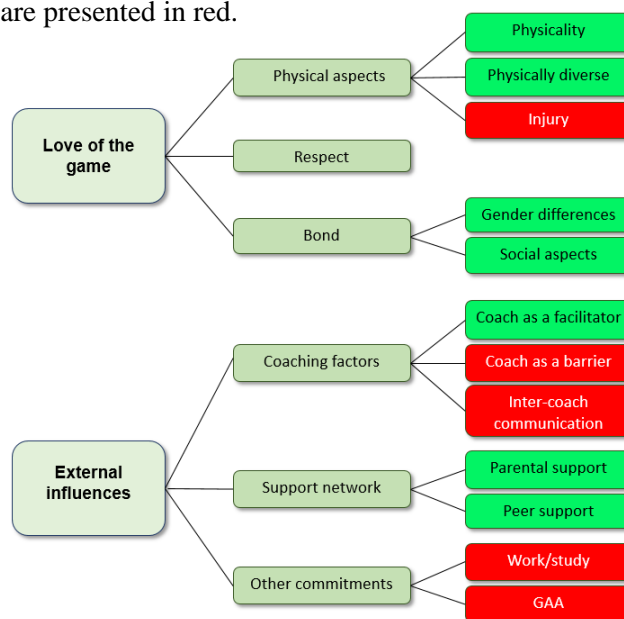
According to Morrow and Smith (2000), trustworthiness in qualitative research is tied to the paradigmatic underpinnings of the philosophy in which an investigation is conducted; in my case interpretivism. This stance brings with it certain criteria for rigour (Tracey, 2010). I have attempted to justify my reasons for adopting the methods of data collection and analysis and how they were conducted previously, not only based in the literature but why they suit me and in particular, this research. I have developed a familiarity with Connacht rugby and the landscape of rugby in the province, through sitting in on committee meetings, conducting previous player database analyses, staff meetings and producing several reports on the ongoing research. An example of meeting notes and possible directions from a meeting between the research team and Connacht Club and Community staff can be viewed at appendix 13. This collaborative process helped produce reports that while based in research, were actionable in the real world. This meant that we the researchers presented possibilities to practitioners, and the practitioners in turn sense-checked these possibilities to help us refine and adapt them to tangible, actionable and achievable goals. An open invitation to participate to all stakeholders that met the criteria was made, and sampling was random within the criteria

for each group where there more than five respondents. Groups with less than five respondents were essentially self-selected. Frequent meetings took place between the principal investigator, me, and the research team. In these meetings I presented my methods, rationales, and process to be scrutinized and my justifications held to account. An important aspect to my credibility is my previous training. During my undergraduate degree, I took modules based in research methods qualitative analysis, sport psychology, pedagogy, and critical analysis. I also strived to give thick description to my findings, providing rich and substantial quotes to showcase each theme, allowing the reader context and specific evidence of each theme discussed (Tracey, 2010). While the research warranted specific context for Connacht rugby and the wider Connacht rugby community, the basic principles adopted, and the broader findings should transfer to other regions in Ireland and beyond. I hope by being as transparent as possible in the process, the reader can decide for themselves if my predispositions, acknowledged in my methodological decisions and the findings were solely from the resultant data.

4.3. Results

The purpose of this study was to explore barriers and facilitators to continued participation in club rugby in the Connacht region, specifically at the 16-19-year-old cohort of players. In all, 335 meaning units were highlighted in the analyses of the stakeholder focus group transcripts. Distillation and synthesis of the meaning units saw development of six themes and twelve sub-themes. The generated themes were further organized into two dimensions that best illustrated the main factors affecting players' intention to dropout or continue in rugby in Connacht. Table 4.2 below provides a breakdown of these dimensions.

Table 4.2: Breakdown of each dimension into its relevant themes and sub-themes. Factors considered as facilitators are presented in green, while barriers to continued participation are presented in red.



4.3.1 Love of the game

The dimension ‘Love of the game’ contains several themes and sub-themes that symbiotically support a player’s intrinsic love of the sport and intention to continue. Participants believe that the game of rugby, its rules, structures and surrounding culture is unique. The entwined aspects of physicality, respect, team bond and social culture in the game are key motivators to instilling a love for the game itself and intention to continue. When players talk about these factors in describing why they play rugby, they suggest that it forms an intrinsic intention to play. For those that continue these seem to be the presiding factors, which instil a love of the game.

“I suppose I just love being on the pitch in general. It's just the decisions you have to make and just, well, I love the physical contact aspect of it as well, but I just I just love the game in general and I love the people I've met in the game a lot as well.”

Adult male player participant two captured the essence of this dimension and the interplay of the individual themes contained, when describing what he likes most about the physicality of rugby:

“I think definitely it adds to the kind of respect aspect. I'm in a lot of combat sports but in rugby there's a huge amount of respect between people because they've just gone through basically a war like! Look, on the pitch you've gone through such a kind of brutally physical match with either a teammate or your opposition, when you battered

the bejaysus out of each other for 80 minutes and when you come off, there's a kind of mutual respect, which then leads to just more and more craic!”

The themes of this dimension are integral to supporting a player’s motivation to continue. A summary of how these themes are interdependent and how they drive motivations are illustrated in figure 4.2 below.

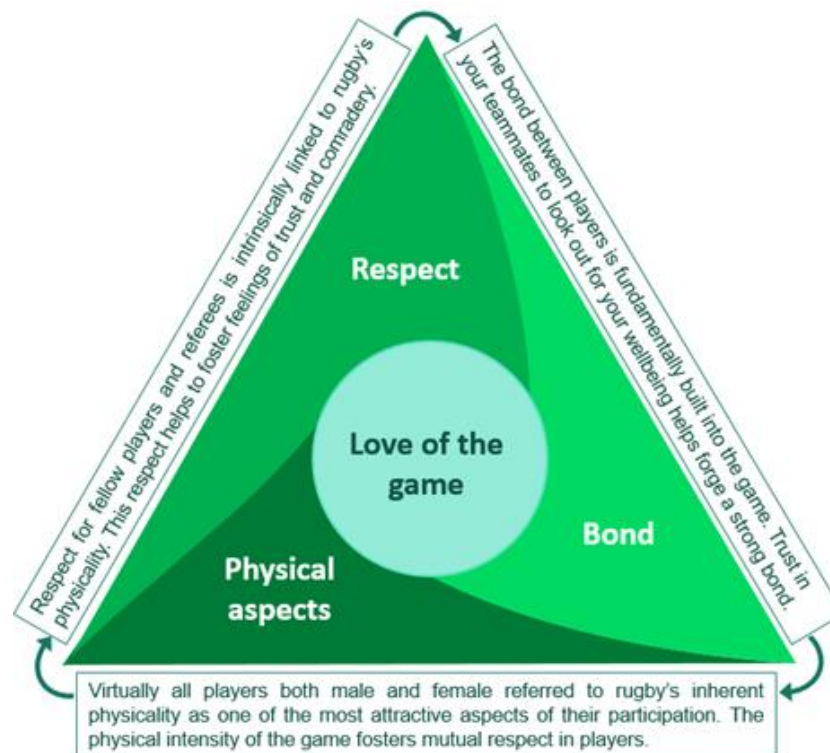


Figure 4.2: Illustration of the themes incorporated in the dimension ‘Love of the game’ which underpins a player’s motivation to continue

Physical aspects

Physical aspects of rugby are broken down into three sub-themes. These sub-themes are ‘*physicality*’, the ‘*physically diverse*’ nature of rugby and ‘*injury*’.

Physicality

Virtually all players both male and female referred to rugby’s inherent physicality as one of the most attractive aspects of their participation. Rugby is a contact sport and

played to an intense pace. The structure of the game requires specific physical qualities based on position, accommodating a wide range of individual physical attributes that may not be suited to other field sports. The opportunity to express yourself through physical impact was repeatedly referred to. *“Just being able to like, go into a ruck and hit someone and get hit and get back up and just.... It's the rush!”*- Adult male player participant three. The description of the feeling or “rush” that comes with intense physical impacts in rugby is echoed by youth male players: *“It felt really weird and all, but the second I got into contact with somebody, like I tackled somebody down, I, I like felt like, proper like, oh this is gonna be great fun!”*- youth male player participant one. Female players do not differ in their desire for physical contact and the feelings that it brings. Female youth player participant three explains:

“Physicality. Yeah, the physicality. Like getting to make a big hit or getting to be aggressive but in a near enough polite way or like.... I don't know. Kinda like making a big hit on somebody and then after the match being like complemented on it by them or something?”

The quotation here also illustrates where the mutual respect aspect ties into the physicality. Being complimented on “making a big hit” by an opponent, led to a feeling of respect for her actions and ability. It is noteworthy that this comes after the game, which suggests good-natured player interaction after the game is over, touching on the ‘bond’ theme.

Coaches not only acknowledged players’ desire for physicality, they understood its importance as a motivating factor and the need for players to experience it; *“I think the physicality of it actually... The tackling is a big thing. They really enjoy it and that doesn't just go for the teenagers, its right up to seniors”*. This acknowledgement by a rugby facilitator suggests that rugby is known for its physicality and that players want that particular physicality (the tackle) as part of their intention to play.

While acknowledging that physical contact is a positive motivator for players, it needs to be managed in an appropriate way. Transitioning of youth players to adult player status happens after the age grade of under 18.5 years. The transition into adult rugby is not suited to all youth players and can prove a barrier to continuing. The gap in physical development for some younger players, when playing with fully developed men, is a reality that can be too much. An example of how this transition can act as a barrier to

certain players and their perceived stage of physical development is given by male youth player participant two.

“I think it's a fairly big jump and I haven't gone to senior yet, simply 'cause I felt like I wasn't ready. I was kind of itching to play under 20's and we didn't have a team my first year under 20's...I feel like it's kind of a big jump physically [senior rugby], especially if you're not ready. Some players are able, but just for me personally, it's like it's more of a physical thing”

Players feel that an under 20's age grade is an appropriate step in managing the transition from youth to adult rugby. Here male youth player participant three describes the benefit of participating in an under 20's team with respect to easing the transition into adult rugby:

“One thing that a lot of clubs are trying to do anyway is introducing an under 20 team which is like, it's a stepping-stone to from under 18 to senior. I think if you have an under 20's team and you playing under 20's, that step is a lot smaller to seniors.”

Physically diverse

Several focus groups highlighted the structure of rugby ensures a level of organization and positional diversity that suits individuals of different sizes and types of fitness, when compared to other field sports. This adult female player participant two explained:

“I think with the positions in rugby as well, there's a position for everyone. Like in GAA, everyone is kind of level in like in fitness or speed like, throughout the pitch. But with rugby you have people with different speeds, different fitness, but they're all on the one pitch, on the one team...like you're just more accepted and probably more open to people as well.”

Her co-participants agreed with that belief: *“I definitely completely agree with everyone; it's one of the most inclusive sports I know”*. This feeling of inclusion despite traditional athletic body type or fitness is something that coaches believe too. Coaches also see the potential for physical diversity fostered by the structure of rugby. They see this as a factor in supporting involvement for all those on the field:

“Look at soccer and Gaelic football, you need to be an athlete, alright. Whichever position you play, you need to be able to run. There are positions in rugby where some

of your less athletic players will thrive actually, or even some of your shy ones, they can be involved in a game of rugby and they're not going to be isolated"

This quotation highlights the coach's perspective of how the structure of the game of rugby fosters an atmosphere of engagement for all participants. This inclusive atmosphere accommodates "shyer ones (players)" and helps to bring a meaningful experience to all, inclusion and involvement enhancing a group bond.

Injury

The level of physicality in rugby is a motivating factor for players but it can come at a cost. A high impact sport like rugby can lead to injury. All players and male and female coaches acknowledged it, but injury only becomes a real barrier as players get older. One adult male player (participant 2) perceived injuries as a barrier for a working adult but not being important as a youth: *"Can you afford to go into work with a black eye? Or can you afford to break your leg? Like **** was saying, when we were in school like, you didn't really mind getting injured"*. This youth player, however, does describe chronic injuries as a negative factor in motivation to continue: *"I think injury kind of plays a part, in that if you just happen to be on a poor run [of injuries], if you're picking up injuries, that can kind of hit you motivation wise."* Coach participant one also touches upon this point. He questioned what supports are in place and what is the remit for players burdened by injury, acknowledging this is an issue and may not be addressed appropriately: *"There's also the element of seriousness. The elephant in the room has to be about injury and injury recovery. You know what is there for them, if they do get injured because we are in a very physical environment here."*

While players like the physicality, those looking in might not. The perception of rugby as a dangerous sport was addressed once but warrants mentioning. Participants highlighted how concussion is at the forefront of the media surrounding rugby and this can influence a parent's decision not to allow their child continue:

"Yeah, absolutely and girls that would love it [the physicality] would put up a fight with their parents and what to continue but they would have to pull out. 'No, mom won't let me play now' and they would be in tears about it because we might have heard about one or two concussions, and they don't want to chance it." (Female Coach participant 2)

Respect

Players reference the term 'respect' to describe why they like being involved in rugby. This respect seems to be born out of the trust placed in teammates due to rugby's intensely physical nature and a shared experience of enduring for a cause. The quotation below is from a male youth player. He links the bond or connection formed with a teammate to the development of respect in rugby:

*"It's just as *** said, the bonds you form with like friends, like a teammate, it makes you have a really strong connection with them and helps a level of respect in rugby. That's a really good thing in rugby, there's a lot of respect in the game."*

This mutual respect is not aimed solely at players; it permeates into the overall game. The officials responsible for their safety and training (referees and coaches) are regarded with respect. This connects the danger element due to physical impacts with respect for the custodians of their safety and enjoyment. When players mention it, they seem to take a sort of pride in it and refer to it being unique to rugby. This male player takes pride in the element of respect in rugby:

"You know respect towards your teammates. Sometimes you like have arguments and all, but like you show teammates respect and then they like drive you on. There is respect towards the referees as well. It's like in rugby there's so much respect entwined. Referees are a really big thing in like rugby, and like they have really big respect. There is more respect to ref's compared to other sports like let's say soccer."

The Bond

The bond that players feel they have with their teammates and coaches is universal. All focus groups give mention to the bond forged through playing rugby. The trust players must have for each other stems from the physically intense nature of the game. This bond is regarded by players as an inherent part of rugby and something they place great value in. This quotation from a female player links the physical intensity of rugby and the connection formed because of it.

"The intensity of rugby like there's nothing....it sets it apart from everything else like there's nothing like it. There is nothing like being on a pitch with like 14 other people and like feeling so connected in like, one goal like, I don't think any other sport is just, it's not like any other sport ever played."

This youth male player participant four describes how much of a positive experience sharing the bond in rugby is:

“There's always going to be people there that kind of make it easier just to show up, like when you're there with people that you enjoy being around and everyone on my team I enjoy. I have enjoyed being with them, even if I wouldn't have been the strongest pals with them.”

The fact that he enjoys being around those he plays rugby with even though he admits that in life *“I wouldn't have been the strongest pals with them.”* He specifically refers to the connection shared in playing rugby as a motivating factor in the reason he shows up to train.

The player went further when trying to describe how important that feeling of connection is: *“That's what drives me (the bond). I'd die for the lads. I'd do anything for them. They are amazing.”* Parents noticed this too. One parent of a current player highlighted the uniqueness of the bond that their child experiences in rugby:

“Me as a parent looking in, I think the camaraderie with his rugby playing friends is a lot greater than when he was with the GAA. I think there is a sort of a special bond there that is the impression I get. You know they seem to be closer knit than when he was with the GAA lads.”

Coaches that have played also understand its importance and its role within a successful rugby team. This quotation from female coach participant one really illustrates the link between physicality, need for mutual trust and the unique and special bond, which the game fosters:

“They love the team bonding aspect. I think it might be the nature of the sport. I think the fact that in rugby you have to trust the player next to you. You know it is fundamentally built into the game. If there isn't that trust in the player next to you, you're not going to do well. Everybody has role, everybody has a position and I think it brings the team closer because they, they have to learn that respect and trust for one another and for the coaches teaching them.”

Gender differences

Although the sense of team bond is common to both male and female rugby players, there are aspects that are more specific to females. Females, more so than their male counterparts, feel the sense of belonging and the connectedness to the club is a primary motivating factor in their participation in rugby. The approach to working with female

players should be considered different to male players given their differences in basic needs and motivations.

Females have trouble eloquently describing the strength of the bond they feel to their team and club. Females refer to the team and club as “a second family”, “a safe haven” and “another home”. Female youth player participant one searches for words to describe this feeling of belonging and likens it to a second family:

“As cliché as it sounds, I think it's just like family. Like I think you've just got this, like you've got this sport that you're so like in actual in love with and like these people that all love the same thing as you do and you're all like almost like bound by this one thing it's just it's like it's like magical. I can't even they describe it I don't know.”

Adult female player participant two echoes this sentiment when describing what she likes most about rugby: *“I think the family aspect, I think like the togetherness and like the group kind of, I suppose, community aspect of it all.”*

This feeling of belonging and being part of a group or “family” evokes positive feelings of competence and self-belief in female players. The natural intensity of the game of rugby seems to enhance these feelings. When asked to describe what the best part of rugby participation is for her, she describes this feeling of empowerment afforded by peer acceptance:

“It's almost limitless. Like, you can just totally be yourself when you're on the field. In amongst everyone, there is no judgment or anything and you don't need to worry about anything you know?”

Some coaches of female players were aware of the importance of the social bond formed within the group. This coach acknowledged the difference in motivations for playing rugby in girls and the importance of recognising these differences, when retaining players:

“Listen, for us every trip away is a massive trip it's at least an hour and 20 and to go away, so we put a coach on. But listen, within 15 minutes being on the coach they've got the music playing, you know they're singing they're joking and that's it. They just enjoy each other and that's that. That was exactly the same on the last day as it was on the first day, so that is how I measure it really. That we still got the same amount of girls at the end of season as we had at the start and they're prepared to come back and do it next year.”

Social aspects

While a game of rugby brings two clubs together to compete, it also provides an occasion for social interaction for all involved. The social side of rugby refers to engagement, post-game, between players, coaches and parents. It also refers to the social interaction between players outside of rugby driven by the bond formed by playing together. This player links the bond from playing at the club to developing a shared friendship in a social setting outside the club:

“Definitely the social side, it becomes a bit of a loop. All your mates are within the club you know, you only go out with them lads all of a sudden...the social side of it ties in very quickly once you become mates with lads and that makes it very enjoyable”

One parent linked the love of the game to the social aspect associated with rugby when referring to her son and what she feels is his main motive for participation:

“He just loves it from day one and has been since day one in rugby and I suppose the exercise, the competitiveness, the winning and losing it not so much so I suppose you know, just the social and you know the comradery with all the people he's met and things.”

Female adult player participant four reminisced on how important the social interaction between players of opposing sides was after games and how it provides a positive experience:

“It definitely adds a lot, even myself, I've had so many experiences of like in the clubhouse after game or after a blitz or whatever with the other team. You'd just end up sitting at the same table chatting and that adds to your ability to make friends. Not people that were just battling each other on the pitch, but to be able to go and have a cup of tea with them after.”

One particular social aspect, commonly cited by players and coaches is the rugby tour. This male coach feels that tours are a selling point for rugby and enhance player connectedness: *“Rugby offers tours, which is something that I think has always been very important to the game of rugby... I think that is a great bonding session for them.”* These tours are perceived as enjoyable, enhance team bonding, drive motivation, and help with player retention.

“We used to go on a tour every year from like under elevens, let's say and I found that was like a help with player retention so much. We would go on a tour at the end of the year and everyone would just be buzzing for the next season, talking about what we were doing the next season and then the next tour, so I think it helped player retention. I'm still mates with all the boys that went to Spain.”

The transition from youth to adult rugby was previously mentioned as something that needs to be managed appropriately from a physical perspective. Interacting with adults in a competitive climate is also a major dynamic change to a young player. Socializing with adults in the locker room environment and the increased pressure of training also needs to be handled appropriately. Some players felt that although the prospect was daunting, actually doing it was not that bad given that adult players would have respect for a younger person coming in:

“You're playing against fully grown men. It is scary, but once it once you get in, I think one thing about rugby is the people in general are a lot more welcoming to younger people. You know, I found, I think they do look after you because it is such a physical sport. The thought of it was a bit spooky before you actually get into it, then once I got in, sound”

4.3.2 External influences

A player's continued participation in rugby is influenced by those that surround them. There are influential people that provide support and help enhance a player's experience, particularly coaches but also peers and parents. There are also competing demands in a player's life that make participation more difficult. Other commitments such as work or study or playing other sports can have a negative influence on intention to continue. Three themes make up the 'external influences' dimension: coaching factors, support network and other commitments.

Coaching factors

The theme 'coaching factors' is broken down into three sub-themes: the coach as a facilitator (pull factors), the coach as a barrier (push factors) and inter-coach communication. The coach has a vital role in the development pathway of a player and is usually the main contributor in helping to foster a positive motivational climate for young people to thrive. All focus groups consider the coach a key figure in a player's

intention to continue. One male youth player highlights that *“Coaches are a big part. Like some of them would want to make you quit the game and then some of them like, you would die for them on the pitch”*.

The coach as a facilitator

All stakeholders involved in this study believe the most important role of the coach is to have a positive relationship with the players under their supervision. Good coaches need to know each player individually and know what motivates them to improve and to facilitate and support that improvement. Players feel the coach can be an immediate and defining factor in their intention to continue. Male youth player participant four describes how, despite his lack of competence in rugby, one coach who believed in his ability, motivated him to pursue rugby:

*“It's one of the coaches in for like the under 15's and under 16's. His name is ***** and he encouraged me to play on rugby a lot, he really did give me a lot of motivation and drive to like keep on at it like, you know, just keep on playing the game and like he motivates me a lot as well for that reason.”*

When asked to describe what a good coach does that would improve a player's experience, adult male player participant one cited the coach-player relationship. He emphasised the need for the coach to see the players as people first:

“Getting to know all the players like. Just him getting to know them outside the training ground. Like if you're only seeing them (players) once a week, then you don't really (know them). You might not build up a relationship with them and not know what the story is with them.”

Regional development officers (RDO's) have an oversight of a range of coaches and clubs. Their view on the coach as a facilitator to help with retention is similar: *“Like it's amazing the influence that coaches and people like that have. If they put an arm around the person and say ‘I'm looking after ya’, you know I think that's really important.”* This RDO feels that having a relationship with each player is vital. Taking time to meet their need for relatedness can be the defining factor in retaining that player.

Coaches also see a good coach as a mentor and facilitator. A good coach needs to know what an individual's needs are and affirm those needs. Female coach participant one describes what that looks like:

“You know learning their intrinsic motivations, and you know, playing them to their strengths. There are certain people who come, you know, as opposed to the enjoyment, come for different reasons and I think it is really important to know that. I think it is really important to recognize if one of your players is slightly off, check in with them and make sure, you know they're doing OK and if there's anything you can do to help them.”

The coach as a barrier

While less stakeholders focused on the coach as a barrier, those that did felt that the coach was solely responsible for those that discontinued in rugby. Adult player participant three gave a striking personal example of how certain coaches drove those players that were on the fence away from rugby despite peer support:

*“That year was not fun really. It was just they were eejits, basically. They didn't know what they were doing, they weren't, they weren't proper coaches. Some lads were kind of hanging on by a thread at that stage anyway, like we were saying they were being dragged along by the other players and once you get a bad coach or bad coaches like that, it just f***ing pushed people off the edge. Then they gave it up for good.”*

He also describes the situation a friend faced when players' expectations for leadership are not met, it can have a negative effect on retention:

*“I remember they had such a bad coach and they actually got to Connacht final, just out of sheer talent between the lot of them. On the way to the Connacht final the coach brought them to f***ing McDonald's for the pre match meal! They were just like ‘Jesus this fella is an absolute joke!’ Like, in for Big Macs? Before the big Connacht final? That was the last time a lot of those lads played rugby I can tell you.”*

Coaches that understand the motivational differences and basic need of female players help will help to facilitate the positive experience. Some coaches are not aware of these differences and do not attenuate their coaching to suit. This can have a negative impact on retention in female players. Female coach participant two reflected on how an authoritarian or autocratic style of coaching can drive some female players from the game:

“I think an awful lot is down to the coach, the type of coaches that's coaching. There are coaches that shouldn't be coaching women or girls. I just feel some coaches out there, they just shouldn't be coaching girls and they might be very competitive. Not

saying that the girls are not competitive, but there's a there's a way of getting around. There's a way of getting what you want across without roaring and shouting, and so many players, so many players we've lost."

Inter-coach communication

Some players play for different rugby teams in Connacht, schools, club and possibly on regional development squads and in the Connacht academy. Other players participate in sports alongside rugby. Coaches felt in order to maximize a player's development and minimize physical and mental stress, all coaches need to communicate and share opinions on those players. A lack of inter-coach communication was highlighted as a negative aspect of player retention. This coach (male coach participant four) described the difficulty in meeting an individual's needs to help motivate them to continue when inter-coach communication is not there:

"Look, you're dealing with a guy who just wants to turn up and have a bit of crack, and you're also dealing with a guy or girl who has aspirations to be a top-class rugby player. It's very hard to do it all (provide for their needs), particularly when you're not maybe at times getting the chance to communicate with the Connacht branch and with other coaches even in your own club and with other coaches in other clubs."

Support network

A healthy support network is crucial in meeting the needs of younger players to continue playing rugby. In describing what helps make it easier for her to continue in rugby, this female player (participant one) summarized: *"its coaches, its parents, its players on your own team like"*. The support network theme encapsulates those things that support a player's basic needs and ease of participation. The sub-themes that pull together this theme are two areas that prominently featured in the stakeholder focus groups: parental support and peer support.

Parental support

Younger players seem to recognise parent support as a major facilitator to their participation. Coaches and the parents themselves also recognise that support is invaluable to a young persons continued participation. Youth male player participant three is succinct in his take on the positive influence of his father on his continued

participation: *“For me my dad kind of encouraged me to keep playing and I probably wouldn't be here if it wasn't for my dad helping me stick with the game.”*

Coaches understand that parents can be a major influence on continued participation. This quote from female coach participant one described how parental support was the defining factor in their child's continued participation:

“One of the girls was getting bullied by a couple of the guys in her school. It was the stereotypical you're a rugby player, you're a lesbian, you know, butch, blah, blah, blah the whole thing. The only reason she kept coming was because her parents pretty much dragged her kicking and screaming to training. Now she loves the sport.”

Parents themselves know how much support they give from a logistical standpoint. Players need transport to and from training and also supported financially. While the players themselves may not have recognised this aspect, parents are the gatekeepers in accessing training and games. Parent participant three describes a typical week:

*“Yeah, well this year he is in 5th year and he moved to ***** for rugby from school here in *****. He just moved into transition year so during the school year it's Monday evening with Connacht, Tuesday with schools, Wednesday he has Gaelic with the schools, Thursday has Connacht, Friday a game vs. Buccaneers and then after Sunday could be another match. Now I teach in ***** so you know I could wait on and stuff after but it's just yeah, so it's, it's nonstop and he's one of four children so. I mean I enjoy it as well it gives me great pleasure too.”*

Peer support

Players themselves place great value on their teammates as a support to their continued participation. All players perceive that their peers motivate them to keep on playing rugby. This factor is linked to the connectedness and bond players describe in their reasons for loving rugby. Female youth player participant three described her peers as the main thing that makes it easier for her to continue playing rugby: *“I would probably say my teammates all along would have been my biggest fans. They influence and keep encouraging me to play, to keep pushing myself. So yeah, definitely them.”*

Coaches also acknowledge the importance of that support players show each other. This regional development officer participant two describes the level of influence peers can have over each other:

“Your peers. Peers keep players playing rugby as much as we do. Good coaching, all the way up along will help OK, but if you can get one or two influencers to come back and play, normally a few lads will come with them. But if you find they go, the other lads will go with them, they are influencers and they [are] just natural leaders of groups.”

Other commitments

Being involved in competitive rugby is a big commitment. In order to pursue continued participation in rugby, a player must reach a balance to accommodate the competing demands of work, study, leisure and other sports. Certain commitments are largely non-modifiable, and a player will need support to find balance. If a player’s motivation to play is attenuated due to perceived stress or uncertainty, these commitments can become a barrier to continued participation. Two sub-themes make up the theme of other commitments; firstly work/ study commitments and secondly Gaelic football (GAA). While playing other sports is common, in Connacht the sport of Gaelic football is ever-present. It is the main sporting conflict to rugby according to stakeholders and is prevalent enough to have its own sub-heading in the Connacht context.

Work/ study commitments

Adult players feel the burden of other commitments, particularly work. Given the large rural area of Connacht, a lot of players move away from clubs to work and attend college. Getting back to their club for training can be difficult and is a major issue for some. Adult player participant one explained:

*“You might have a job, or you might be up in college, or you might be even travelling with your job. You might be moving all around the country. You're not in ***** Monday to Friday from 9 to 5 definitely. Let's say there's a lot more kind of variables, let's say, as you get older.”*

Young players feel pressure from other commitments too, mostly related to study and part-time work. For some, a balance can be found but for others the balancing act can become too much. Youth female player participant four suggested that other commitments can be a defining factor in dropout and not a negative experience with rugby itself:

“I would say I have a few friends who have kind of drifted in and out of rugby and I think the biggest kind of factor of why they would stop's gotta be like just school and like increasing pressure from exams and stuff. I don't think it's ever been a negative experience with the sport itself, you just can't fit it all in.”

Coaches and parents are aware of competing demands and the pressure it can put on young players. While study and exams are a barrier, there are other variables in a young person's life challenging their motivation to continue. This regional development officer participant one describes how they see young people cope with competing demands to rugby:

“Sometimes they'll choose sport and other times they'll choose the other option that might present itself, so it's difficult, you know. Trying to get me to get 600 points in the leaving cert so you know, everyone is different. I think those pressures that we find it hard sometimes to verbalize or put our finger on, I think are definitely there and present in players around that 16 to 20 age.”

GAA

Stakeholders feel the GAA competes with rugby for players. In Connacht there are over 230 GAA clubs and 25 senior rugby clubs. The season of GAA and rugby can overlap and can put pressure on players that play both sports. Adult male player participant three feels that GAA has a big pull on possible rugby players.

“The GAA season goes on so long it's hard to find an off-season for the GAA lads to play the rugby season. If the Rugby season was at a time when there was no GAA being played at all, I think they'll be a lot more GAA lads going, “oh sure, definitely I'll play rugby.”

One of the major issues with those that play GAA and rugby is identity. The GAA club is a parochial institution in any Irish parish and completely tied to the community. Male coach participant one acknowledged the esteem with which the GAA club is regarded in the community and understands that forcing a young person to choose may a negative outcome for the rugby club:

“It's imperative we work with those guys and they get a good experience in rugby and want to play the game. But we live in an area where Parish is king. You play for your parish, you know, within the GAA so you know we can't afford to give ultimatums to those players.”

Many young people will play both rugby and GAA but when push comes to shove, will opt to represent their GAA club as they identify as a GAA player through tradition. How a player identifies is generally considered a non-modifiable factor. Male coach participant four gave his angle on how player identity will be the defining factor:

“Do they see themselves all through their lives as being the footballer or whatever?...I do think there is a loss to the game but they were never ours completely. You know we were fighting for those players, but they're not our players.”

4.4 Discussion

The aim of this project was to investigate reasons for dropout among 16-19-year-olds, involved in club rugby in Connacht. The use of focus groups was to delve into stakeholder perceptions of positive and negative aspects of rugby participation in Connacht, which are associated with dropout and retention. These aspects were unpacked through several avenues of inquiry centred on the questions: Why do they play? Why do they stay? Why do they leave? The discussion prompted by these questions provided insight into player motivations, factors that support continued participation (pull factors) and barriers that hinder continued participation (push factors).

4.4.1 Motivations to play rugby

Players' motivations to play and continue were summarised by the dimension “love of the game”. Stakeholders in Connacht felt that the entwined aspects of physicality, respect, team bond and the social culture of the game, are key motivators to instilling a love for the game itself, supporting intrinsic motivation to play. This dimension is consistent with previous research (Kerr, 1988, 2018, 2019; O’Hanley, 1999; Fields & Comstock, 2008; Chase, 2006; Parise et al., 2015) which suggests that it is the nature of the game of rugby itself, rather than the specific situation in which it is played, that determined the motivation of rugby players. For example, two separate studies by Kerr (1988; 2019) found the aspects ‘physicality and aggression’, ‘physical challenge’ and elements of risk, alongside other factors intrinsic to the game, are believed to produce increases in the player’s level of arousal, perceived as feelings of excitement and enjoyment. Parise et al. (2015) suggest that the physicality and level of engagement of rugby can aid young people in managing their emotions. They hypothesize that the

physical nature and competitive engagements are constrained by a prescribed ethical code, which in turn augments the respect players have for rules, referees, and teammates. Likewise, stakeholders in Connacht refer to the enjoyment associated physical challenge of rugby as a primary motivator for participation, they also felt that physicality bled into feelings of respect, team bond and social culture, which were cited as things they valued in their rugby experience. Deci and Ryan (2000) describe this type of motivation as “intrinsic motivation”, or “task-orientated motivation” the doing of a task solely for its inherent satisfaction, not some separable consequence. They suggest that the intrinsically motivated person is compelled to participate for the enjoyment or challenge, rather than external influence, pressures, or rewards. This is an important consideration for those people that play a supporting role in a players rugby experience. If a player’s motivation is task involved and nurtured appropriately, they are more likely to experience increased levels of motivation, competence, enjoyment and satisfaction, and sport persistence (Roberts, Treasure & Conroy, 2007).

4.4.2 Barriers and facilitators to continued participation.

As discussed, stakeholders in Connacht felt that the main sources of enjoyment, those experiences that kept them coming back, were associated with how they perceive the ideal rugby environment: physically challenging, a climate of mutual respect and forging bonds of comradery and friendship. People that surround the player (coach, parent, peer), help to create an environment that either supports or undermines motivation to continue (Crane & Temple, 2015; Keegan et al., 2009; Vazou, Ntoumanis, & Duda, 2006; Côté, 2002; Côté & Fraser-Thomas, 2007). Stakeholders in Connacht felt that the supporting role these people play influence ease of participation and their enjoyment of rugby.

The coach

Players in Connacht felt a coach who sought a positive relationship with individual players and provided support for their development and motivation to play, made participation easier and enhanced their enjoyment of rugby. In some cases, however, it was the coach and their behaviours that negatively impacted the team environment and were directly responsible for player attrition. Lack of coaching knowledge/ expertise as perceived by players, poor communication and an authoritarian or autocratic style of coaching were cited as negative aspects.

In the environment of youth sport, the role of the coach strongly influences the structure and quality of the sports experience (Sellars, Mellalieu, & Knight, 2018; Vazou, Ntoumanis, & Duda, 2006). The coach is the first and most regular point of contact for players and the first gatekeeper for a player's enjoyment and satisfaction. Coaches play an especially influential role in the processes that mediate the development and motivations of an athlete (Smith et al., 2007; Ntoumanis et al., 2012). While generally, coaches are responsible for developing an athlete's overall abilities, be it technical, physical or cognitive, their influence on the individual goes much further. Becker (2009) found that athletes believe that alongside a coach's knowledge, a great coach influenced their motivation to become a better person in life as well as in their chosen sport. Athletes also felt that an athlete-centred climate was a fundamental factor in being a great coach. In a separate study by Gunderson et al. (2018), athletes described a 'bad coach' as authoritarian, overly critical of players in front of their peers, provided little feedback and promoted feelings of insecurity in their competence and abilities. Therefore, to enhance player retention, it is essential that coaches have the requisite expertise to create a climate where the athlete feels valued and supported, avoiding overt control, controlling statements and guilt-inducing criticisms (Reinboth & Duda 2006; Mageau & Vallerand 2003).

Côté & Gilbert (2009) define coaching expertise by the integration of three components: the coach's knowledge, their athletes' outcomes and the specific coaching context. Players in Connacht cite the relationship they had with their coach as pivotal in their intent to play and continue. Connacht players felt that a competent coach (knowledge) who knew them as a person (their interests etc.) and understood their motivations (context) was more likely to keep them coming back (outcome), highlighting the importance of the coach-athlete relationship. The coach-athlete relationship has been described as the setting in which the coach and athlete develop interconnected feelings, thoughts, and behaviours (Jowett, 2005). The International Sports Coaching Framework (2013) refer to coaching as a "relational activity". Coaches need to interact and influence in the team setting and as such need to build honest and functional relationships with their athletes. Antonini-Philippi et al. (2011) suggest that two aspects come to the fore in the development of the coach-athlete relationship: behaviour and affect. Behaviour relates to athletes striving to adapt their behaviour to align with the requirements of the coach. As the athlete's skill set developed, they relied on the coach more for personal support and friendship than for their expertise. Affect refers to the development of

interpersonal feelings, which in turn lead to appreciation and respect, eventually resulting in friendship, bond, and affection. Coaching expertise is an important factor to consider when clubs appoint coaching staff. If players are to have the best likelihood of retention, the coach needs firstly to possess technical knowledge of the game of rugby (where the relationship begins) and the inter-personal skill set to deliver it effectively. A coach must also be aware of the behaviours which negatively impact the motivational climate, such as controlling statements and guilt-inducing techniques, over-emphasis on rewards, and power-assertive techniques that pressures others compliance (Raakman, et al., 2010). If a coach can deliver a climate that promotes the technical appeal of rugby (appropriate physicality, communication, dynamic interaction) as cited by players, adopting a caring climate within the group (Fry & Gano-Overway, 2010) will lead to an enhanced environment of friendship, respect and bond, increasing the likelihood of player retention.

Parental support

Stakeholders in Connacht acknowledge the positive influence parents and peers can have on their rugby experience. While there is research on the negative influence parents can have on retention due to perceived pressure, criticism, and expectation (Robinson & Carron, 1982; Gould et al., 1996), it is important to note that stakeholders in Connacht did not discuss any negative influence. Stakeholders felt that parents helped player participation through role-modelling, leadership, encouragement, and logistical and financial support. These views are in line with existing literature on youth sport involvement and positive parental support (Hellstedt, 1987; Côté, 1999; Babkes & Weiss, 1999; Wuerth et al., 2004; Fraser-Thomas et al., 2008; Keegan et al., 2010; Dorsch et al., 2020). Given the importance of parental support in an athlete's intention to continue, organizations may benefit from helping parents understand their influence and help refine their role appropriately. In a recent rugby specific study, Rouquette et al. (2021) found clear indications that when adolescent male rugby players perceive their parents support as unconditional and responsive to their needs, they experience positive psychosocial outcomes (self-esteem, thriving) and experience less worry and anxiety in relation to rugby participation. The author suggests that rugby organizations not only provide appropriate information to parents on appropriate behaviours and levels of involvement, but also consider outlining strategies on ways parents can regularly engage with their child on specific needs and desires in relation to their participation.

Peer support

Stakeholders in Connacht referred to the positive influence of peers in enhancing motivation and supporting intention to continue. Players referred to feelings of respect and comradery with their teammates, and in particular felt that their peers were a source of support to continue when motivation was low, keeping them coming back. These perspectives of peer support enhancing enjoyment and motivation are consistent with the literature (Carr et al., 2000; Vazou et al., 2005; Ullrich-French & Smith, 2006). Peers become particularly influential coming into adolescence (Keegan, 2010). Adolescents have been found to derive competence information in competitive sport as well as social and moral development from their peers (Brustad et al. 2001; Horn & Amorose, 1998; Smith, 2003). Keegan (2010) suggest that while youth athlete/ adult relationships are important, they may represent a type of power imbalance that impacts social goals and perceptions of motivational goals adopted by the athlete. Peers, however, can provide a more autonomous form of feedback support. They provide social interactions from an equal, which promotes identity and feelings of belonging; competition which promotes normative evaluations of competence; and peer collaboration which promotes self-confidence and emotional support. These three components described by the author align with two of the components of basic psychological needs within the framework of Self-determination theory: relatedness and competence, with autonomy being the third. Fulfilment of these psychological needs is a key determinant to level of engagement and commitment in sport (Deci & Ryan, 2002). This impact peers have on the motivational climate is an important consideration. Coaches and educators need to promote and support an environment of positive peer interaction which in turn will have a positive impact on development and retention. While leadership behaviour is often biased toward the adult perspective, adolescence is an important time for developing leadership behaviours (Karagianni & Montgomery, 2018).

Hopton et al., (2007) suggest that teams adopting a motivational climate guided by positive social behaviours, efficacious beliefs towards the team and individuals within it, will drive a healthy motivational climate and intention to continue. The integral aspects to a healthy motivational climate as mentioned here are also reflective of the tenets of transformational leadership. Transformational leadership (Bass, 1985) contains four main aspects: idealized influence, inspirational motivation, intellectual stimulation, and individualized considerations. Transformational leaders have a positive influence over the growth and development of their followers. This leadership style of role-

modelling and supportive behaviours promotes the ideals of basic psychological needs theory and enhances intrinsic motivation (Richer & Vallerand, 1995; Charbonneau et al., 2001). According to Zacharatos et al., (2000), transformational leadership behaviours are not limited to adult populations. They found that in the sporting context, transformational leadership behaviours are also displayed by adolescents and as such influence their peers. This suggests that peers themselves play a vital role in shaping their own sporting environment. Implementing strategies to enhance peer support using the framework of transformational leadership could prove beneficial to player development, performance, and retention. Leadership programmes for adolescents have had positive outcomes (Gregoric & Owens, 2008; Hoyt & Kennedy 2008). Gregoric & Owens (2008) investigated the effect of a two-day peer-support leadership workshop, on social support outcomes in adolescents. The outcomes of that intervention included increased levels of overall social skills, co-operation, decision making, conflict resolution and self-esteem. The principles of leadership behaviour can have a positive outcome for players. A strong rationale is evident in the research, and connected with our findings, leadership courses, although not always viable, would be recommended for clubs, a collective of clubs and/or the province to implement.

Gender considerations

Males and females share common aspects in their enjoyment of rugby (Young, 1997; O'Hanley, 1999; Fields and Comstock, 2008). It is important to recognise, however, the difference in some specific motivations that are more important to females. Williams et al. (2013) found that female athletes specifically described deriving relatedness support from a feeling toward the club itself, in much the same way that they did from social agents (coaches and others within the club). Female participants from Connacht echoed these feelings. They felt that sense of belonging and the connectedness to the club is a primary motivating factor in their participation in rugby. According to Connacht female players and their coaches, relationships formed through playing rugby promoted strong feelings of closeness comparative to a familial bond and was key to continued participation. The message from the data and the literature is clear: coaches that promote social interaction and relatedness (defined as a sense of mutual caring and connectedness with significant others in their direct sporting environment) within female playing structures are more likely to succeed in retaining those players. Self-determination Theory (Deci & Ryan, 2002) suggest that relatedness, as part of an individual's basic psychological needs, can be enhanced by promoting an environment of respect,

inclusivity and security but is undermined in an environment which fosters competitiveness, criticism and exclusion (Gunderson et al., 2018). Females are more likely to cite negative perception of pressure, training difficulty, competition and athletic ability as reasons for dropout than males (Salguero 2003; Molinero 2006). Coaches of female players interviewed, also felt that excessive competitiveness, critical communication style and autocratic coaching, created a negative environment for female player retention. Given that findings in this study and the available literature point to the same issues for female players, it suggests that creating a climate that fosters collective identity and social support focusing on relatedness could be beneficial to retaining female players.

Injury

The physical nature of rugby was an important factor to all players and coaches interviewed and was cited as a positive and enjoyable aspect of rugby participation. Physical contact does not come without inherent risks. In a review of the literature, Temple & Crane (2014) found that injury and maturation were the two most common physical reasons for youth dropout in sport. From July 2017 to May 2019 in Ireland, injury prevalence for at least one injury in male players stood at 51% and 37% for female players (Yeomans et al. 2021). The topic of injury was touched upon by all stakeholders. While the concern for adult players was loss of earnings and financial cost through injury, adolescent players felt that injury negatively impacted their motivation and if a player had a run of injures, it would have a negative impact on their intention to continue. Evans et al. (2012) outline the various consequences of injury beyond sports absence as negative long-term effects on physical and mental well-being, unique treatment requirements and the associated financial burden. While clubs may have some supports in place regards physical injury treatment, it is important to acknowledge the negative psychological impact injuries may have on players, such as concerns about losing their place, feeling depressed, low self-esteem, and increased anxiety (Tracey, 2003; Truong et al., 2020). These psychological aspects of injury have a negative effect on a player's recovery and motivation and can lead to cessation of sport (Taylor & Ogilvie, 1994). Given its prevalence and the associated impacts on the injured, not only physical but psychological supports need to be in place to provide optimal recovery and ensure continued participation. Some coaches in Connacht did question the supports available to injured players. If players are likely to suffer injury at some point, clubs need to have a supports system in place to treat not just the injury site but to ensure the player has

adequate social support throughout their recovery (Tracey, 2003; Podlog & Eklund, 2006; Truong et al., 2020). Hardy & Grace (1993) break social support into three guises; it can come in the form of emotional support (listening support, emotional comfort, sense of care), informational support (reality confirmation, task orientated focus) and tangible support (day to day help, material and personal assistance). The most effective source of social support comes from those that surround the injured individual: athletic trainers, family, and peers, while research suggests that coaches provide the least support (Clement & Shannon, 2011; Udry et al., 1997; Corbillon et al., 2008). Given the concerns raised by some coaches and players about post-injury support, and the detailed guidance available in the literature outlined above, Connacht clubs and their coaching staff may benefit from additional guidance to ensure injured athletes feel valued, included, and supported by their club throughout their recovery (Podlog & Eklund, 2004; Maurice, Kuklick & Anderson, 2017).

Transitions

Transitioning from youth to adult rugby was seen as barrier to continued participation in Connacht. Players felt that the jump from youth rugby to adult rugby was daunting from a social and physical perspective and was responsible for dropout. These concerns were also highlighted in those players transitioning to adult rugby in Wales (Sellars et al., 2018). De Martelaer et al. (2004) suggest that the majority of transitioning youth sport athletes struggle to cope adequately during this transition and are at high risk of dropping out of sport. An assessment paper by Stambulova et al., (2012) suggest that higher standards in training, social uncertainty and expectations of others as the main issues faced when to transitioning to adult sport. It is important that these concerns are attended to by coaches. They also recommend that life-skills training can help athletes cope better in transitions. Finn & McKenna (2010) suggest that coaches perceive skills such as problem solving, accepting responsibility, exhibiting self-control and positive reappraisal benefit a successful transition. Much like coping with injury, both these suggestions tie in with appropriate social support and guidance to help players adjust to uncertainty.

Contextual factors

Connacht stakeholder's perspectives were aligned with previous research in outlining how contextual factors such as study/ work commitments and other sports participation

also have influence over a player's intention to continue. While an individual may be motivated to play, contextual factors can combine to undermine intention to continue in sport (Linders et al., 1991; Salguero, 2003; Molinero, 2006; Sellars et al., 2018). According to Sellars et al., (2018), players value having disposable income gained through employment and experiencing gratification through other personal activities outside rugby. When players view academic and employment demands as incompatible with sports participation, dropout will occur. Despite this, it is suggested that competing demands alone will not negatively affect continued participation if a player experiences enjoyment and satisfaction through positive coach relationship, opportunity, and social experiences. This is further evidence on the importance of the supporting role that coaches, peers and parents have on providing social support and coping strategies (Podlog & Eklund, 2004; Maurice, 2009; Stambulova, 2012).

While multi-sport participation is actively encouraged in youth of sampling age, specialization, and investment in one sport becomes important for those over the age of fifteen years old (Côté, 1999; Côté & Vierimaa 2014). Other sports did not feature as a relevant issue with rugby participation with the exception of Gaelic football. Stakeholders in Connacht felt that Gaelic football competes with rugby for players. The Connacht rugby season and Gaelic football season overlap and those players who have an option to play both must choose. Identity plays a huge role in a young person's choice to pursue Gaelic football or rugby. The concept of identity in this case is suggested by Sellars et al., (2018) as the extent at which a young person identifies with a sport. In particular, the strength of the sporting community they are involved, level of social ties in their sport and their family's history of involvement. Given the long history of the GAA in Connacht, familial ties and parochial representation espoused by the Gaelic football community, young people may identify more often as a GAA person. When clashes in sport involvement occur (rugby versus GAA football), stakeholders in Connacht feel adolescents that are primarily invested in a GAA community, usually choose Gaelic football over rugby. This issue is by and large non-modifiable, a young person that identifies as a football player will choose football when a decision needs to be made. It is important however, that Connacht rugby clubs provide an engaging and inclusive player environment and invest in local community. By doing so rugby clubs may entice those players that are uncertain or unsatisfied with their football environment to choose rugby.

4.5 Limitations

Due to COVID-19 restrictions, engagement with schools and clubs was not possible and as a result an important cohort of voices was not heard; those that have ceased playing rugby. Different approaches to connect with this cohort were made through Connacht rugby staff and through those individuals that did participate, recruitment of those that dropped out was unsuccessful. The views of these players and of their parents would provide valuable data on first-hand experiences of those that decided to drop out of rugby. Future investigations into dropout and continued participation in rugby in Connacht, should focus on those that have dropped out of rugby to provide information on measures that can be taken to attenuate dropout based on their experiences.

Another group that can provide a unique perspective are those players who play for school only but are not affiliated with a club. No definitive reason was found as to why some play for school and not club. While some stakeholders have speculated on reasons as to why this occurs, such as athletic identity, first-hand perspectives will add important insight on this issue and why it occurs. Future research on why some young players only choose school may uncover valuable insights, which may help with inclusion and retention strategies.

4.6 Conclusion

While the stakeholder focus groups uncovered specific perspectives to continued participation in Connacht, most factors do line up with existing literature from other sporting contexts. Players felt that work/ study commitments were a barrier to continued participation in rugby, but these barriers were attenuated if the rugby environment supported their needs as players and individuals. Stakeholders suggested that the elements inherent to playing rugby, the physicality, mutual respect, and the bond within the team environment were the aspects that led to player enjoyment and motivated them to persist in rugby. Stakeholders feel that a players peers provide a strong support base to influence their term-mates to stay involved in rugby when cessation or dropout has become a possibility. Players felt that parents too, provide financial, logistical and emotional support and can be detrimental to their continued participation in rugby. Players cite the coach as the first gatekeeper in providing a healthy team environment and supporting individual needs, playing a key role in retention. Individual needs of players vary, circumstances such as injury, youth to adult transition and work/study/life

balance, are all things that a player will deal with in playing rugby and need to be managed appropriately by coaches. Female players too, have different needs to their male counterparts and cite the feeling of bond, identity and “family” within the team as a primary source of enjoyment and respond negatively to authoritarian coaching styles. Further discussion of the implication of this investigation are considered in chapter five.

Chapter 5
Implications

A key finding in this body of research is the association between appearances and retention. The Connacht rugby player database analysis provides robust evidence supporting this association. While it does suggest a strong correlation, a directional relationship cannot be explicitly determined by this alone, although some studies suggest that greater opportunity to participate may increase likelihood of intention to continue in rugby (Jones et al., 2017). However, when the findings from the stakeholder focus groups and existing literature are layered on top of this data, it does begin to paint a more detailed picture. The inherent aspects of physicality and risk involved in the game of rugby, drive feelings of mutual respect between players. This shared experience and mutual respect supports feelings of team bond and a strong social culture in the rugby environment. These are the key motivators to instilling a love for the game itself and intention to continue. The main avenue of experiencing the challenge of physicality and consequently, feelings of respect and bond in rugby in Connacht, come from playing the game. This being the case, it suggests that appearing in more games may be a significant driver of retention for players in Connacht. Connacht Rugby Club and Community have already acted on this. Since the submission of the database report the “Connacht lé Cheilé” initiative has been introduced, based on the half game rule as proposed by Jones et al. (2017) to ensure younger adolescents are guaranteed playing at least half a game. Furthermore, rugby participation weekends are also being developed by Connacht Rugby Club and Community to allow all players to be involved in non-competitive development games. Although higher appearances and higher likelihood of retention are associated, higher appearances numbers associated with playing for both school and club and playing up an age-grade are not possible for all players. Strategies to find alternative ways to develop and promote retention with these players is also important. Players in Connacht cited that their peers were fundamental in keeping them playing rugby when they lacked motivation and dropout was imminent. Coaches also cited the influence some players have on the player group. Strategies to develop peer support and leadership have shown to have positive outcomes on player retention (Gregoric & Owens, 2008; Hoyt & Kennedy 2008). Support strategies are also important for injured players. Adolescent players in Connacht felt that injury negatively impacted their motivation and if a player had a run of injuries, it would have a negative impact on their intention to continue. The literature supports this perspective (Taylor & Ogilvie, 1994). Given that not all clubs have access to appropriate medical staff that have the prerequisite knowledge to support players through the negative psychological impact of burden of

injury (Tracey, 2003; Truong et al., 2020), support for these players often falls on the coach. For most rehabbing players the athletic training coach is the person with whom they will spend the most time. Truong et al., (2020) suggest that positive social support from an athletic trainer was critical in effective rehabilitation. It could be an effective strategy for clubs to invest in social support education for players, in helping their teammates recover from injury (Gregoric & Owens, 2008) and also coaching staff, who have a direct role in their rehabilitation.

Stakeholders in Connacht felt that the coach was a key figure in a player's intention to continue. Players suggested that if the coach knew them as individuals it would have a positive effect on their persistence. It is important that the coach support all the players at their disposal by adopting a supportive and inclusive climate. Coaching development should include educational workshops and CPD materials, to ensure that sufficient reference is present on coaching strategies that support a player centred approach. Campbell et al., (2022) have drafted a document to help coaches understand and use theory-driven motivational strategies such as basic psychological needs support, to benefit not only athletes but also themselves. Other examples of frameworks include An Integrative Definition of Coaching Effectiveness and Expertise (Côté & Gilbert, 2009) and how coaching behaviours can influence empowerment of basic psychological needs support to attenuate burnout and ultimately dropout as suggested by Hodge et al., (2008).

Another notable aspect relevant to coaching is the differing motivations between males and females. Motivations to play rugby are common to both genders, but also divergent in certain important aspects. While female players in Connacht are negatively impacted by excessive competitiveness, critical communication and autocratic coaching, they are more responsive to relatedness derived from team bond and social support. This finding is backed up in the existing literature Salguero et al., 2003; Molinero et al., 2006). Rethinking the delivery of coach development pathways for those who coach in women's rugby could enhance player retention. Diverging current practices to address the gender specific motivations particular to females; relatedness support, security, sense of belonging and acceptance could potentially have a positive impact on enhancing player retention and the women's rugby environment in Connacht. An example of this is an interactive tool kit exclusively designed to aid in the development of females in coaching (Sport Ireland, 2021) and address the gap in information that exists in the coaching experience of females in Ireland as highlighted in the Women in Coaching research survey published by Sport Ireland (2020).

Coaches need to be aware of the difficulty some players have with the prospect of transitioning from youth to adult rugby. Players of both genders felt that the jump from youth rugby to adult rugby was daunting from a social and physical perspective and was responsible for player dropout. U-20's rugby has been cited by stakeholders in Connacht as an appropriate ease of transition. Given the difficulty of many clubs in the Connacht region in fielding adequate numbers in this age-specific competition, this strategy may not be an option. It is important from a retention standpoint that other avenues are explored to gradually integrate younger or less physically mature players into an adult rugby environment. Club staff and coaches should be made aware of the importance of developing strategies to address ease of transition. Lack of support during this transition will likely lead to dissatisfaction and dropout (Andronikos et al., 2019). While some literature points to coping strategies and personal development through life-skill training, there are other more practical avenues. Clubs and coaches may introduce gradual exposure through blending of team training with youth and adult players (Mills et al., 2014) and discuss peer mentorship programs between youth and adult players (Clark et al., 2013).

The Connacht Rugby player database is an excellent resource to monitor player participation. The database provides valuable data on not just registered player numbers, but also and importantly active game participation. From Connacht Rugby's perspective, annual audits of club participation numbers could flag clubs that show negative trends in player retention and open discussions into potential problems and solutions. Given the primary objective of retention, one potential strategy is that an award system be introduced based on club retention rates. Connacht Rugby Club and Community could utilize this system to raise awareness of retention with clubs and disseminate strategies, based on the perspectives of successful clubs, that others can adopt to enhance retention numbers. Now that a data processing and analysis framework has been established, Connacht Rugby Club and Community should explore means by which these analyses might be updated on an annual basis. This form of data collection on registered players is an excellent tool for any sporting organization in monitoring and assessing participation trends. For those organizations that do not have this data at their disposal, introducing a similar database would be an invaluable asset. The information gathered from the data would provide better insight and understanding to policy makers focused on best practice for retention strategies.

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Appendices

What advice does the research give us about retaining participants aged 16-20 in competitive sport?

Critical appraisal tool for screening possible papers of inclusion:

To sufficiently appraise the quality of a paper that may be included in a literature review, a series of questions posed in the form of a checklist is often used (CASP, STROBE).

Choosing the correct one is based on the type of studies (i.e., qualitative vs. quantitative) and what you wish to examine. It is not unusual to adapt a quality assessment tool to suit your research question.

In the case of this review, both qualitative and quantitative research methods meet inclusion criteria. In order to avoid the use of two separate checklists, a checklist has been adapted from CASP checklists as a guide to assess quality and rigor, and avoid risk of bias on selected papers, with reference to Smith (2018). This should make screening papers more economical and more specific to the needs of the review question.

Checklist:

1. Clear statement of aims

Does the introduction include a clear, concise statement of what the main aims of the investigation are and a rationale as to why these aims are warranted within the literature? Is it relevant?

2. Was the research method appropriate to study aims?

Is qualitative or quantitative research design the right methodology for addressing the aims of the research? Given the aims or research question, was the chosen research design most suited to addressing these aims?

3. Did study design addresses aim?

Has the researcher has justified the research design? Is this design in line with the goals of the investigation? Has the researcher has justified the research design?

4. Is the study based in a valid theoretical framework?

Has a current or adapted theoretical framework been employed as a guide in the study? Has this framework been validated in the literature? Does it serve as a structure and support for the rationale for the study? Does it clearly address the problem statement, the purpose, the significance and the research questions? (Collins and Stockton, 2018)

5. Are limits of Theoretical framework scope discussed in the findings?

Can the theory be used in conjunction with the research questions being developed? Are any limitations of this application to findings addressed? (Osanloo and Grant, 2016).

6. Appropriate participant recruitment strategy to address aims

Has the researcher fully explained how the participants were selected? Has the researcher explained why the participants they selected were deemed most appropriate to provide access to the type of knowledge sought by the investigation? If there were dropouts and/ or those who chose not take part, has the researcher discussed this?

7. Was the data collection method sufficiently rigorous?

Has the researcher has justified the methods chosen?

Quantitative studies: Was the method of data collection validated in the literature? Has the researcher tested its reliability? (Hopkins 2000). Has the researcher made clear how data were collected (questionnaire, interview etc.), and the situation (environment) of the data collection?

Qualitative studies: Has the researcher has made the methods explicit (e.g; focus groups, is there a structure, core themes, open ended questions provided?

8. Was suitable rigor applied to data analysis?

Does the researcher describe how the raw data was extracted? Is it justified? Does the researcher demonstrate informed choices about the analysis methods used? Does the researcher provide an in-depth description of the analysis process? Is the type of analysis used, appropriate to the goals set out in the investigation?

9. Is there a clear statement of findings?

Does the researcher present the findings explicitly? Are these findings discussed in in a balanced and unbiased way? (Evidence, both for and against the researcher's arguments). Does the researcher discuss any factors that may have influenced, or limitations within the findings? Are the findings are discussed in relation to the original research question being investigated?

10. Do authors mention how findings may build on current research?

Does the researcher discuss the contribution the findings make to existing knowledge or understanding (e.g., do they consider the findings relevant research based literature)?

References:

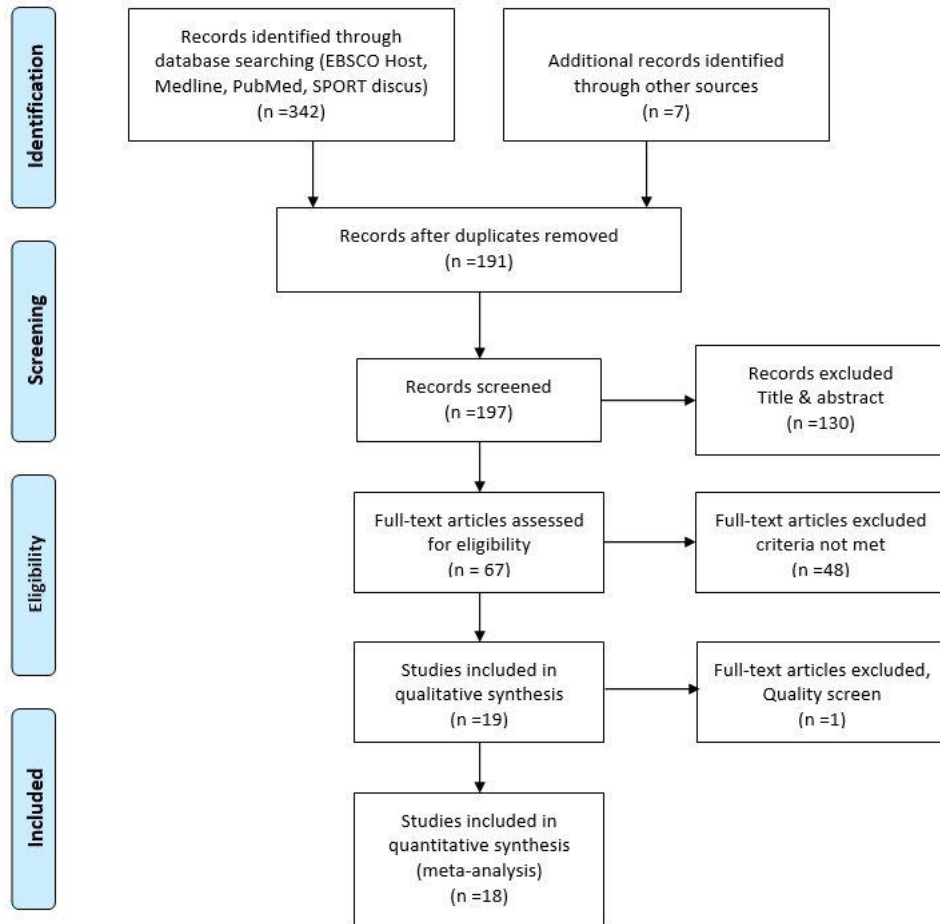
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Appendix 2
Prisma flow chart



Prisma flow chart illustrating the distillation of papers of inclusion in the literature review contained in chapter 2.

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EXECUTIVE SUMMARY



PROJECT BACKGROUND

The Connacht Rugby Age Grade Committee approached the University of Limerick through the “UL Beo” initiative (Department of Physical Education and Sport Sciences) to examine ways that the branch could support the underage player pathway to better facilitate the playing experience, reduce drop out and ultimately see more players playing at all ages and continuing to adulthood as participants in rugby at all levels.

These goals would be in line with the IRFU and Sport Ireland commitments to the Lifelong Involvement in Sport and Physical Activity Models and to help build the base of the performance pyramid.

This project was supported by the Lifes2Good foundation. One of its aims is to support community initiatives in the West of Ireland and the foundation recognises the critical importance that local community sport plays in the wellbeing of people and the physical and social health of communities.

AIMS

This report is the second part of a work package that seeks to investigate and examine the issues surrounding older adolescent player drop-out and retention within Connacht. This report describes lessons learned from a review of relevant research based in competitive sport. This report will help to inform and guide further research investigating stakeholder (i.e., current and former players, coaches, parents) perceptions relating to player retention through a series of focus groups.

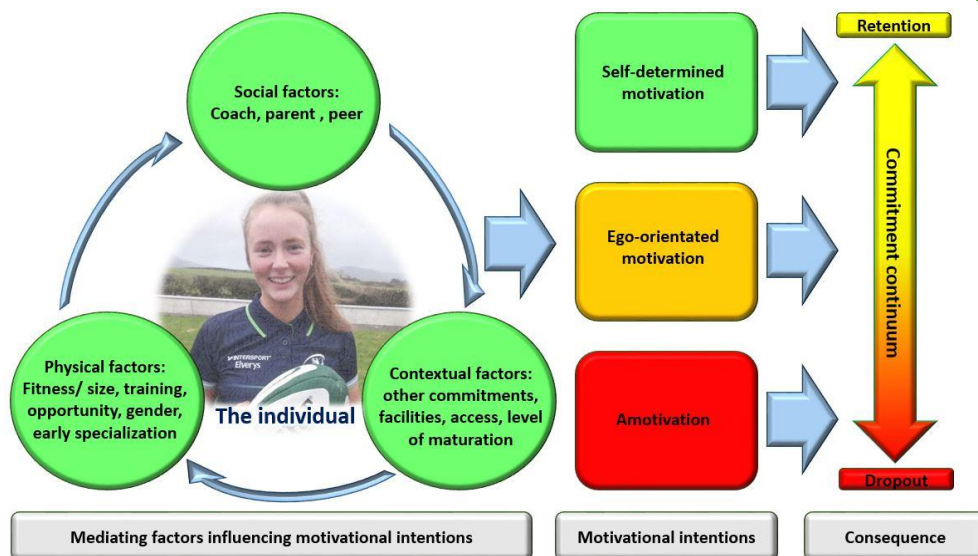
The intention of this review of the relevant literature is to:

- i. Explore current research on factors that influence dropout and continued participation in competitive sport for young people between 16-19 years of age.
- ii. Extract and synthesise those papers within the research, to highlight the relevant barriers to and facilitators of participation.

- iii. Use these findings to inform the design of focus groups to further investigate the more specific factors involved in dropout and continued participation within the rugby community in Connacht.

OVERARCHING THEME

This graphic illustrates the key factors surrounding an individual's intention to continue in their sport or to dropout. Social, physical and contextual factors influence an individual's level of motivation. It is important to recognise that motivation is a key determinant of an athlete's intention to continue in sport.



Basic human psychological needs are to feel competence, connection to a social group (termed relatedness) and feelings of choice in their own development (autonomy). Fulfilment of an athlete's basic psychological needs is a key determinant of level of engagement and long term commitment in sport. Self-determined motivation is theorised to be a consequence of basic psychological needs fulfilment⁽¹⁾. Self-determined motivation is when an individual is motivated to fully engage in a process for reasons of enjoyment and personal developmental needs, having a positive effect on intention to practice and continued participation in sport.

PRINCIPAL FINDINGS

If coaches create an appropriate motivational climate that fosters the players' basic needs for competence, autonomy and relatedness ([table c\(i\), pg. 13](#)), it will have a positive influence on levels engagement, feelings of conflict towards study/ work and retention in sport.

EXAMPLE

RECOMMENDATIONS

Review coaching development workshops and CPD materials to ensure that sufficient reference is present on coaching strategies that support competence, autonomy and relatedness. The use of reflective checklists and monitoring tools should be layered into coaching practices to investigate the current coach-created motivational climate.

Resources are available to aid practical implementation of basic psychological needs development in young people. 'Keep youngsters involved' provides guidance on [Learning Climate, Relatedness, Autonomy and Competence. Workshops might integrate purposeful open discussion with tools such as this KYI card game](#)

Assist individual coaches to reflect on their sessions by incorporating suitable session review questions ([Table C\(ii\) pg. 13](#)). Assist coach developers by structuring observations with the [Multidimensional](#)

Females are more positively influenced by feelings of security, sporting identity and relatedness within their club than their male counterparts. Negative perceptions of pressure, training difficulty and competition, are more likely to be associated with dropout in females than males.

EXAMPLE

It is important for clubs to understand and embrace the subtle differences in reasons for dropout in males and females, particularly relatedness support. CRC&C coaching pathways should reflect this by reviewing available resources and integrating [female coaching mentorships](#) to keep up with the growing game.

Nationally there are some excellent resources available for coaching female players, particularly the [IRFU 'Give it a try'](#), the [IRFU female players LTPD](#) and [LGFA Gaelic4girls](#). Internationally there is a growing body of research dedicated to female participation in sport such as the Women's Sport Foundation [keeping girls in the game](#), also acknowledging Sport Coach UK's [coaching considerations for females](#) and [higher level coaching performance](#). Development of a specific set of workshops for both male and female coaches in coaching female rugby players based on international best practice and the needs of CR will enhance coaching expertise and have a positive impact on female engagement and retention.

Enjoyment of sport is associated with continued participation. Enjoyment and satisfaction, particularly in younger adolescents, are primarily associated with development and social interaction with peers. However, by their late teens (19), enjoyment is derived primarily from competition.

EXAMPLE

A policy for a structured developmental player pathway should be reviewed. Coaches should be educated to prioritize developmental needs of adolescents over results. Young adults need to be regularly exposed to the challenge of competitive action to increase the likelihood of retention.

A review of the current [IRFU LTPD Pathway](#) as a starting point for CRC&C to draft a best practice policy, based on specific regional club needs may be beneficial. Other resources similar to the [Sport Ireland Pathway](#) should also be considered when looking at long term athletic development. This should include an auditing of how competitions can be used appropriately to enhance each developmental stage.

Sense of belonging presents a motivating factor that supports an athlete's engagement. Within rugby union, it has been observed that if an individual identifies as a rugby player and feels connected to the rugby community, a greater value will be placed on their participation.

EXAMPLE

Social aspects of club life should not be neglected or underestimated. Coach developers should help clubs to audit the extent to which they develop a [sense of identity](#) and connectedness within playing groups through family, coach, peer and club interactions.

Player led initiatives should be encouraged and supported by the club. Bonding activities like facilities upgrades (designing, fundraising and volunteer labour by players and staff), charitable community work may enhance [a sense of value](#) and identity among players.

Positive peer support, particularly in a contact team sport like rugby, helps to add meaning to an athlete's experience and as such plays a positive role in sporting commitment.

EXAMPLE

Review coach development and CPD materials to ensure that sufficient reference is present on coaching strategies that support the development of team cohesion and athlete leadership within youth teams.

Resources are available through 'Keep youngsters involved' for suggested actions to enhance [Peer Involvement](#) . Monitoring tools to assess and encourage positive peer support may be incorporated into club structure. This could be introduced via a set of club "values" based on inclusion and respect, with a designated "values officer" as a support for coaches and players alike. Player organized and player led initiatives are also valuable in developing athletic leadership in a team.

Parental influence, plays an important role in sports participation. Appropriate parental involvement enhances an athlete's sporting experience promotes engagement and retention.

EXAMPLE

To help to avoid disengagement behaviour in their child, it is important that parents utilize the valuable educational resources available on [child welfare on the IRFU website](#) . These IRFU guidelines should be revised annually to ensure that current best practice is being adhered to.

In addition to IRFU guidelines on child welfare, external resources should be explored to aid parent/coach relationships and gain valuable expertise in caring for the student athlete: Clearinghouses' [Engaging Parents in Sport, Non-perfect Dad, Working with Parents in Sport and KYI's Parental Autonomy Support](#)

Exploring coach confidence in engaging effectively with parents via simple surveys could prove beneficial in improving lines of communication and highlighting common modifiable issues being experienced.

Ease of access to participation in a sport has an effect on levels of commitment. Contextual factors such as cost, facilities, time constraints influence the level of accessibility for individuals and as such continued participation.

EXAMPLE

Clubs should engage with the wider community to ensure that modifiable contextual factors are affording equal opportunity for all young people to play rugby. A minimum standard of facility policy should be reviewed by CRC&C.

In reviewing club standards on providing quality experience and accessibility for all, external resources could be explored in the context of [cost, accessibility and time commitment available through 'Keep youngsters Involved'](#). [Gaining feedback from clubs and a review of current guidelines by CR may lead to a best practice statement for clubs to maximize and promote ease of access and equal opportunity for all to play and continue to play rugby.](#)

LITERATURE REVIEW

WHAT IS A LITERATURE REVIEW?

A literature review is an important starting point in any investigation. It is designed to provide an overview of sources explored when researching a particular topic and to demonstrates how current research fits within a greater field of study. Relevant research may be obtained from recommended texts, scholarly

articles and other empirical sources relevant to a particular issue or research area. It provides a description, summary, synthesis and critical evaluation of these works in relation to the research problem being investigated. This process will place sources in a relevant context, consider their contribution, highlight any gaps in the body of research and help to direct for further research.

HOW WAS THE REVIEW CONDUCTED?

An expansive search was conducted using established on-line research databases (appendix i). This search was restricted to published papers between the dates 01/01/2000 to 01/07/2020. Key words were used to identify all possible articles of interest (appendix ii). Specific inclusion criteria were used to screen the available literature (appendix iii). All papers which met these criteria were subject to a critical appraisal to assess for research quality and suitable rigor (appendix iv). Findings from high quality papers were extracted and synthesised to obtain the relevant information needed in this review.

FINDINGS

The motives, barriers and facilitators associated with dropout and continued participation are complex and multi-factorial. These factors do not run parallel and often overlap and merge into concurrent themes. For this reason, the factors have been discussed, not categorically, but in relation to the individual and the influences that surround the individual (see figure 1). These factors have been extracted and attributed to the corresponding studies alongside representative extracts and illustrated in each section by table (see tables A,B,C,D).

THE INDIVIDUAL:

Table A: Psychological factors associated with dropout and commitment in sport, relevant papers and a representative example extract.

The individual	Associated factors	Studies	N	Representative Extract
	Basic needs satisfaction	Guzman (2012); ; Hodge (2009); ; Lindgren (2017); Cervello (2007); De Francisco (2018); Lukwu (2011); Williams (2013)	7	Basic needs satisfaction presents a positive relationship with the most self-determined types of motivation and a negative association with least self-determined ones; therefore, motivation exercises a mediating role between needs satisfaction and engagement.
	Enjoyment	Jakobsson (2014a,2014b); Lagestad (2018); Molinero (2006); Mudrak (2010); Sellars (2018)	6	Most frequent reasons for continuing with club sports were statements like “sport[s] [give me] enjoyment”; “it is fun to practice”; “it is fun, and I like having something to do”;
Psychological Factors	Motivations	Cervello (2007); Guzman (2012); Deelen (2018); Jakobsson (2014a); Lukwu (2011); Mudrak (2010); Ryska (2002)	7	I enjoy it still. I just like it. But, I always hated the system, that I had to make the results at all costs and never could do it just because I liked it. It wasn’t possible. That was the main de-motivating thing, that you couldn’t do it just because you enjoyed it. You just couldn’t.
	Sense of identity	Jakobsson (2014b); Mudrak (2010); Sellars (2018); Williams (2013)	4	Your own identity and your inclusion in a group because we all like to be included. Then you’re representing that badge, that team, whatever it is; I think that’s important.

Perceived conflict	Guzman (2012); Molinero (2006); Salguero (2003)	One of the biggest ones [competing demands] I hear is that “I’ve got to concentrate on my education.” They don’t, a lot, a lot of boys don’t seem to believe that they can marry the two together;
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Psychological factors:

Self-determination theory⁽¹⁾ suggests that humans have basic psychological needs, which must be fulfilled to enjoy optimal well-being. These are defined as competence, autonomy, and relatedness. In a sporting context, competence is a feeling that the individual has the ability, opportunity and understanding to be effective in a chosen sport. Autonomy refers to an innate perception of choice and self-directedness, while relatedness indicates a sense of mutual caring and connectedness with significant others in their direct sporting environment. Their relationship to an individual’s motivation is illustrated below in figure 2.

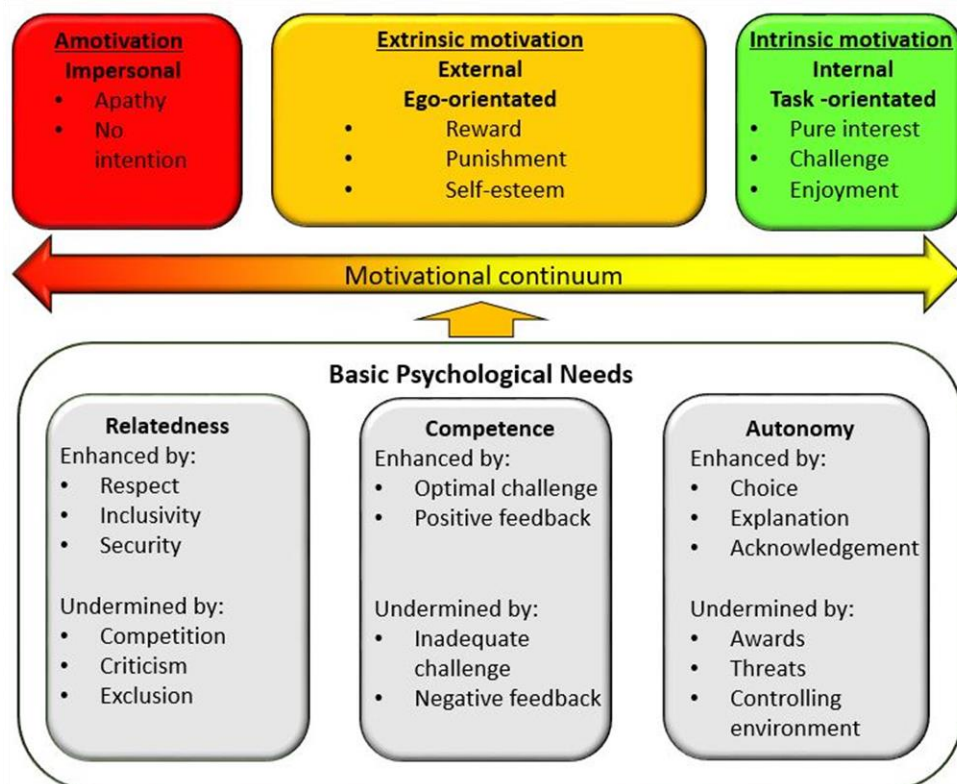


Figure 2: A diagram illustrating how Basic Psychological Needs and fulfilment of those needs, can interact to influence an individual’s motivational behaviour.

Rugby players who report greater levels of fulfilment towards these three basic psychological needs, also report lower levels of athlete burnout⁽²⁾ and higher levels of intrinsic motivation which is associated with higher levels of engagement in sport⁽³⁾. Psychological needs fulfilment is a predictor of sport commitment in athletes, with individuals persisting in their practice of sport 12 months later⁽⁴⁾. Other models suggest that a high dispositional orientation toward external motivations (self-esteem, reward), can positively predict dropout behaviour⁽⁵⁾. Intrinsic motivation also has a positive effect on a player’s perceived conflict (between sport and study). This allows an athlete to place value in their involvement⁽⁶⁾ and thus intention to practice, and persistence in sport⁽⁷⁾. This is an important consideration given that some groups of athletes report “other things to do” as the main reason for dropping out of their sport^(8,9).

Meaningfulness⁽¹⁴⁾ can be found in the sense of belonging when being part of a group^(12,15). This sense of meaning comes from an athletic identity drawn from the group and presents a motivating factor that supports an athletes engagement with the sport⁽¹⁶⁾. Within rugby union, it has been observed that if an individual identifies as a rugby player and feels connected to the rugby community, a greater value will be placed on the sport and a more positive perception of coping with competing demands (perceived conflict)⁽⁶⁾. This sense of identity is closely associated with an athlete’s relatedness to the social aspect of the club⁽¹⁵⁾, which forms part of their basic psychological needs.



Enjoyment of sport is also associated with those athletes who persist. Some adolescents suggested that enjoyment was derived from the fun of meeting their peers and the expectation that everyone should participate and develop together^(10,11). The enjoyment and satisfaction a player experiences is also influenced by the level of coaching expertise and the appropriateness of practice provided⁽⁶⁾. If the athlete feels their ability is suitably challenged and positively reinforced by the coach, this can support feelings of competence and satisfaction. Interestingly, it was found that level of fitness, weight and gender had no mediating effect on levels of enjoyment in sport⁽¹²⁾, however, by the age of 19 years old, enjoyment was more likely to be derived from the challenge of competition than training or participatory factors^(10,13). This observation may be helpful when considering a developmental pathway for young athletes to find enjoyment or meaningfulness within their transitioning periods. While enjoyment may be derived from social interaction and participation as adolescents, as they transition toward adulthood competitive challenge is key. It is important that the enjoyment and value they place on the competitive aspect of rugby be nurtured. Coaches can satisfy this need by allowing adequate exposure to on-field game time for all players.

Physical factors

Table B: Physical factors associated with dropout and commitment in sport, relevant papers and a representative example extract.

The individual	Associated factors	Studies	N	Representative Extract
	Physical fitness/size	Fraser-Thomas (2008); Lagestad (2018;2019); Ryska (2002)	3	Boys participating in organized sport have a higher VO ₂ peak (ml.min ⁻¹ .kg ⁻¹ and L.min ⁻¹) at all three measured times, compared with boys not participating in organized sport.
	Training	Koukaris (2005); Salgureo (2003); Fraser-Thomas (2008)	3	Time-consuming and tiring training, demands sacrifices and abandonment of leisure activities, physical and mental exhaustion, reduction of

Physical Factors				incentives to continue competing and finally to disengagement.
	Early specialization	Fraser-Thomas (2008); Mudrak (2002)	2	Drop outs also started dryland training significantly earlier than engaged athletes, had their first training camp significantly earlier than engaged athletes and reached 'top in club' status earlier than engaged athletes
	Opportunities to develop/ progress	Sellars (2018); Jakobsson (2014a); Lindgren (2017)	3	"Being able to shoot harder and being able to develop and understand the formation and having a great understanding of the game and being a part of the game. That's meaningful and developing, for me"
	Gender as a function	Guzman (2012); Lagestad (2018; 2019); Molinero (2006); Salgureo (2003); Williams (2013)	6	"Guys got a lot more opportunities to play and were given money to go to tournaments but I guess because the girls have, like, one player, you don't get a lot of exposure and people helping you out."

Sports performance depends on execution of physical movements at differing intensities and periods of time. This means that individual physical constraints influence execution and performance. Those involved in a large cross-section of both individual and team sports at nineteen years of age have higher levels of cardiorespiratory fitness (male and female) and are physically taller by 5cm (males only) than those that dropout⁽¹¹⁾. It could be assumed that increased fitness allows a greater level of sports performance to be achieved. Previous literature has shown an association between low-level performance and increased likelihood of dropout from sport⁽¹⁷⁾, which may give more insight into the role of physical fitness in player performance and dropout. Other research has shown that coaches may offer larger individuals more opportunities to play in team sports, by ascribing more importance to physical size than technical ability⁽¹⁸⁾, thus limiting the number of opportunities to develop in smaller athletes. This lack of opportunity to participate and progress due to lack of game time, may lead to negative perceptions of participation and increased likelihood of dropout⁽⁶⁾.

In sport, some children are encouraged to start structured sport participation at an early age. This focus on just one sport from a young age, combined with large quantities of training on a year-round basis is referred to as "early specialization"⁽¹⁹⁾. Early specialization may lead the athlete to decide to discontinue, or in some cases develop chronic injury, forcing dropout⁽¹⁶⁾. Early specialization can also have a negative impact in the longer term. For example, those that disengage or dropout later may not have been psychologically capable of dealing with the pressure that accompanied athletic success earlier on and consequentially may have become disillusioned when encountering obstacles such as performance plateaus during later adolescence. It has been suggested that, while starting ages in competitive sport did not differ, those who dropped out demonstrated a clear pattern of early specialization and participated in significantly less unstructured sports time⁽²⁰⁾. Early specialization was also related to the educational practices (level of expertise in athlete-centred support) of an athlete's coach or parent which influenced the athlete's motivation in a way that supported early withdrawal from competitive sport⁽¹⁵⁾. This stems from the pressure of expectation by the parent or coach, particularly if they were a former specialist athlete themselves⁽²⁰⁾. This demonstrates that not only that perceived training difficulty can have a negative effect on commitment^(9,21), also lack of autonomy in the decision to specialize itself.



Gender differences

While barriers and facilitators effect all young people who seek to participate in sport, associated factors can have differing effects on male and female participants. Some papers show no little or no difference in enjoyment, motivational reasons or perceived conflict^(7,8,13). Others however, suggest females are more likely to cite reasons for dropout as negative perception of pressure, training difficulty, competition and athletic ability^(8,9).

Females who participate specifically described deriving relatedness support from a feelings toward the club itself, in much the same way that they did from social agents (coaches and others within the club) and described the club as “familiar” and evoked feelings of “being secure”, “belonging” and “acceptance”⁽¹⁵⁾. This in contrast with males, in which relatedness may be a factor relating to commitment and burnout but plays a less important role than psychological needs associated with autonomy and competence⁽²⁾.

SOCIAL FACTORS:

Table C: Social factors associated with dropout and continued participation of the individual have been extracted and attributed to the corresponding paper of reference with sample representative extract.

Social factors	Associated factors	Studies	N	Representative Extract
Significant other	The Coach	Cervello (2007); Fraser- Thomas (2007); Koukaris (2005); Lindgren (2007); Lukwu (2011); Molinero (2006); Mudrak (2010); Williams (2013);	8	I was in the development squad.. there were.. girls that were a lot better..the coach would spend a lot of time with them..if you were there for a session the coach never actually came and spoke or inter-acted with you at all.”
	The Parent	Fraser- Thomas (2007); Mudrak (2010); Williams(2013);	3	“My mother was afraid because of the back injury, so, I quit the sport because of my mom.”
	Peers	Cervello (2007); Jakobsson (2014a); Lindgren (2007); Williams (2013); Fraser-Thomas (2007); Sellars (2018)	5	Mostly social, anyway. That is true for both the men’s team and the women’s team. We are such a tight group ... everyone has grown up with one another. A great gang ... everyone knows one another.

a) Coach

In the environment of youth sport, the role of the coach strongly influences the structure and quality of the sports experience. Coaches also play an especially influential role in the processes that mediate the development and motivations of the athlete⁽²²⁾.

On the surface, athletes who dropout cite lack of one-on-one coaching throughout development^(15,20) or negative coaching behaviours (sternness and authoritarian approach) as an influential factor in their decision⁽²¹⁾, others cited simply that they did not like the coach^(8,9). If the coach creates a controlling atmosphere and puts their own need for success before the athletes wellbeing, it negatively affects an athletes motivational behaviour⁽¹⁵⁾.

If the coach adopts a task involved motivational climate (see figure 2), this has a positive effect on psychological need satisfaction, self-determined motivation and sport commitment in the athlete⁽⁴⁾. Concerning athlete motivation, those reporting a high ego orientation and low perception of ability, are more likely to drop out of sport⁽²³⁾. A perception of ego-oriented sports success criteria in the coach, significantly predicted ego orientation in the athlete⁽⁵⁾, thus the coach-created motivational climate can influence an athletes dropout behaviour to varying degrees. Some athletes believed that their coach created a controlling atmosphere and put their own need for success before the athletes wellbeing, which negatively affected motivation⁽¹⁵⁾. Motivations can also be influenced by understanding the athlete’s abilities and challenging them accordingly. If an athlete performs easily in an early stage of development a coach must challenge this accordingly. If results are easily achieved and a coach is happy with the results alone, this can undermine the sense of achievement in the athlete and increase the likelihood of dropout⁽¹⁶⁾. Table C(i) illustrates how coaching behaviours influence a climate that supports or dissuades fulfilment of an athlete’s basic psychological needs.

Table C(i): Coaching behaviours and their influence on empowerment of basic psychological needs support.

**Table adapted from findings⁽³¹⁾*

Climate Dimension	Coaching Behaviour
Empowering Dimensions	
Autonomy support	Provides opportunity for learner input; Provides Rationale; Encourages curiosity Affords meaningful choice; Acknowledges feelings/ listens
Task-involving	Task focused competence feedback; Recognises improvement and effort
Relatedness support	Adopts a warm communication style; Ensures inclusivity; Shows concern for learners
Structured	Provides guidance and clear instruction; Offers expectations for learning
Disempowering Dimensions	
Controlling	Controlling language; Devalues learners’ perspective; Uses rewards as motivation Relies on intimidation
Ego-involving	Punishes mistakes; Recognises superior/ inferior ability; Encourages intra group rivalry
Relatedness Thwarting	Restricts opportunities for interaction; Excludes individuals from certain aspects Demonstrates lack of concern; Belittles opinions and performance of learners

To address the issue of coaching practices negatively affecting the motivational behaviours and perceptions of ability in an athlete, it is suggested that practical guidelines outlining a positive coach-athlete relationship, that fosters autonomy, competence, and relatedness should be adhered to⁽²⁴⁾. These guidelines have been adapted into a seven-question card (table C(ii)) with examples in which coaches can use to reflect on their own practices.

Table C(ii): Prompt card for reflective practice supporting a positive coach-athlete relationship with emphasis on a task-orientated motivational climate. **Adapted from examples suggested⁽²⁴⁾.*

	Reflective Question	Practical Example
1	Did I provide choice to players in the decision making?	Ask opinions on team issues, such as tactical options and alternative training drills.
2	Did I provide a rationale for tasks, limits, and rules?	Explain the logic behind key coaching decisions such as team game plans and team selection.
3	Did I enquire about and acknowledge others' feelings?	Get to know players as people first and players second; acknowledging that some training drills may be repetitive or monotonous.
4	Did I provide opportunities for athletes to take the initiative and do independent work?	Empower players to lead a game de-brief session or take a leadership role in creating and delivering new training drills.
5	Did I provide a non-controlling performance feedback?	Constructive feedback/ information/advice that is focused on the "solution" more than the performance "problem" and that is not tied to any threats regarding team selection status.
6	Did I seek to avoid guilt-inducing or controlling criticisms?	Delivering criticism that focuses on the behaviour not the player's character; conveying criticism regarding performance needs, but also conveying unconditional respect for the player's overall playing abilities.
7	Did I minimize ego-involvement?	Emphasizing self-referenced and self-set training and competition goals for each individual player. Avoiding intra-team rivalries and social comparisons.

b) Parent

Parental influence plays an important role in sports participation. Positive parenting in sport is demonstrated not exclusively through involvement to achieve the child's sporting potential but also engage in a positive social experience and develop a range of positive developmental achievements⁽³²⁾. Parents provide financial support, provide transport to and from training and competition, and often viewed as an important source of relatedness support to the athlete. Active participants seem to appreciate parental support in the form of positive encouragement and administrative assistance. For inactive participants however, more negative feelings towards the parental relationship were characterized by feelings of detachment and distance⁽¹⁵⁾.

In competitive swimmers, a higher number of parents to dropouts, had been athletes in their youth at a provincial level or higher. It could be suggested that this is due to unintentional pressure placed on the child given the athletic history of the parent⁽²⁰⁾. It is reasonable to assume that this relationship also exists in rugby among other sports. If a parent played reasonably high level rugby, they may wish to pass on this positive experience to their child. This can be beneficial, as the parent is able to provide support that complements the specific demands of training and competition, experienced in the rugby environment. In some other cases however, this may lead to external motivation to please the parent, rather than enjoyment in the development process and higher risk of dropout. This is highlighted by some athletes admitting that while they were intrinsically motivated in the sport itself, the pressure to achieve through competition was overwhelming and ultimately ended in withdrawal⁽¹⁶⁾. To enhance their child's sporting experience and help to avoid disengagement behaviour, it is important that parents not only support children's opportunities, but also select the sporting opportunities that are most appropriate for their children's development⁽³²⁾.

c) Peer

Peer relationships play an important role in youth sports. Peers have been associated with the individual's sense of physical competence, their moral attitudes, and other affective outcomes⁽²⁵⁾. Those athletes who

were currently engaged had a best friend(s) engaged in the same sport more frequently than those who dropped out⁽²⁰⁾.

Engaged athletes in both individual and team sports suggest that a primary reason for enjoyment in their sport is through fellowship and affinity with peers and sharing of the social and competitive experience with like-minded young people^(6,12,26). This would suggest that having a positive peer support setting, will add another layer of meaning to an athlete’s experience and as such have a positive effect on commitment.



CONTEXTUAL FACTORS

Table D: Contextual factors associated with dropout and continued participation of the individual have been extracted and attributed to the corresponding paper of reference with representative extract.

Influential factor	Associated factors	Studies	N	Representative Extract
Contextual	Ease of access (time, distance, cost etc.)	Lindgrin (2017); Sellars (2018); Deelen (2018)	3	“And we will not raise any costs just because we switched facilities and the rent is 10 times as high. That is our strength. It is cheap and you can afford it ... everyone can afford to be part of it. That is our motto.”
	Facilities	Lindgrin (2017);	1	“I have the impression that they get the feeling, “You really mean something, and of course you should have a facility without mould!” Because we actually trained in a facility with mould.”
	Level of Maturation	Delorme (2010); fraser- Thomas (2007); Sellars (2018);	3	“Because it’s under 16s you’re playing the same people your own age, aren’t you? And then when you go up to youth you start playing 19-yearolds and stuff then, and people they’re a bit scared aren’t they so they stop playing. That’s when I usually see them stop”
	Other commitments	Molinero (2006); Sellars (2018); Salgureo (2003);	3	“Kids can now get Saturday morning and Saturday afternoon jobs where they are at McDonald’s, where they are at Tesco stacking shelves and part-time jobs and they need the money, and that can adversely affect”

Not all individuals that participate in sport share the same situation, either personally or in relation to their club/ organization. There are certain mediating factors associated with dropout or continued participation that are context specific.



Ease of access to participation in a sport can mediate commitment. All young people must feel they have the right to participate at a club, regardless of ambition, socioeconomic status, gender or disability. This aspect of access for all, is important to encourage young athletes to engage and remain at clubs and in the sporting environment⁽²⁶⁾. In the case of rugby union, enjoyment and satisfaction is also influenced by access to participation opportunities within not just the club but the team setting, with specific emphasis on competitive game time⁽⁶⁾.

Distance from facilities, time constraints and cost is a well cited barrier to ease of participation in younger athletes⁽²⁷⁾. It is worth noting that these issues did not feature prominently in the findings of the literature for this review. There was conflicting findings on associations between distance and commitment. The suggestion is that this may be due to the intrinsically-motivated attitudes of the individual athletes⁽²⁷⁾. In other words, distance is not a primary factor of dropout once the individual is positively motivated to participate. High-quality and appropriate facilities were also a factor which encouraged individuals to continue at a club. The athletes were appreciative of clean, functional facilities and this factor evoked feelings of satisfaction in their club environment⁽²⁶⁾.

An adolescent's levels of maturation may also be a factor their dropout decisions. Past research has found that the older a young person is relative to their peers in the same age-grade or team, the higher the probability of competitive success⁽²⁹⁾. This could be due to differences in physical and cognitive development as a result some players being almost one year older than their teammates. A previous database analysis of club rugby players in Connacht revealed no bias toward more mature players and thus not a factor here.

Other commitments outside the sporting environment can have an impact on an athlete's motivation to partake and continue in sport^(6,8,9). A particularly prevalent competing demand identified in adolescent rugby union was education. Issues such as assignments, exam periods and overall educational commitments had an influence on the amount of time players have to participate in rugby⁽⁶⁾. If opportunities to participate and develop are regularly available to a player and they place value on their involvement, this in turn may have a positive effect on the player's perception of those competing demands and commitment to their sport. Once again an individual's motivation to participate rather than the competing demands is the primary mediating factor concerning sport commitment.

CONCLUDING SUMMARY

The motives, reasons, barriers and facilitators associated with dropout and continued participation are complex and multi-factorial. These factors do not run parallel and often overlap and merge into concurrent themes. An overlapping theme in athlete commitment or dropout is motivation. The literature suggests that if an individual has their basic psychological needs fulfilled, the individual will value their sport involvement and as such will display an intrinsic motivation to practice, develop and continue. This type of motivation is

also associated with enjoyment in their sport, another factor that shares an association with those who continue in sport. While the positive effects of basic psychological needs fulfilment are similar for both male and female athletes, females appear to be more positively influenced by feelings of security and sporting identity and relatedness within their club. Negative perceptions of pressure, training difficulty and competition, are also more likely to be associated with dropout in females than males.

These factors may be mediated by significant others in an athlete's immediate environment. Coaches, parents and peers provide a strong influence in an athlete's sporting involvement and development. It is likely that an athlete will adopt a similar motivational attitude to their coach. If a coach fosters an ego orientated motivational climate, a controlling atmosphere and an emphasis on competitive success over athletic development and wellbeing, the likelihood the athlete will dropout increases. In order to promote player commitment, it is suggested that coaching practices should be player centred, avoid neglecting competitive opportunities for those less physically developed or mature and cultivate a positive coach-athlete relationship, that fosters autonomy, competence, and relatedness.

Parents too can have an impact on an athlete's motivations. While some parents can influence dropout behaviours by applying undue pressure to succeed, athletes that are continuously engaged in sport appreciate parental support in the form of positive encouragement and administrative assistance. Positive peer support helps to add meaning to an athlete's experience and as such have a positive effect on commitment. Young people suggest a primary reason for enjoyment in their sport is through fellowship and affinity with peers and sharing of the social and competitive experience.

Organizations should adapt policies to ensure young people feel they have the right to participate at a club, regardless of ambition, socioeconomic status, gender or disability. Staff should be sensitive to the negative outcomes associated with a lack of equal development opportunities for players. Club facilities should also reflect this, developing a clean safe and appropriate physical environment for its members. If opportunities to participate and develop are regularly available, it is more likely value will be placed on player involvement, which in turn may have a positive effect on the players' perception of those competing demands (education, other sports) and commitment to rugby.

These findings are broad in nature and cover a variety of both individual and team sports. Only two papers directly relate to rugby union. Further research in the area of rugby union would certainly be beneficial. The findings do however, provide a framework of issues that will provide an excellent basis to develop a focus group structure that will aid in the investigating and unpacking of deeper issues surrounding dropout in Connacht rugby.

SUMMARY OF RECOMMENDATIONS

Player focused support

- Resources are available to aid practical implementation of basic psychological needs development in young people. 'Keep youngsters involved' provides guidance on Learning Climate, Relatedness, Autonomy, and Competence.
- [Workshops might integrate purposeful open discussion with tools such as this KYI card game designed to incorporate what and the why of autonomy, competence and relatedness in the youth focused team setting.](#)

Coaching Expertise

- **Self-reflected practice:** Assist individual coaches to reflect on their sessions by incorporating suitable session review questions (Table C(ii) pg. 13).
Peer-feedback: Assist coach developers by structuring observations with the *Multidimensional Motivational Climate Observation System*.
- **Player feedback:** Gain valuable feedback from athletes using the *Empowering and Disempowering Motivational Climate Questionnaire-Coach*

Gender Specific Considerations

- Excellent resources are currently available for female players, their parents and coaches, with the IRFU 'Give it a try', IRFU female players LTPD and LGFA Gaelic4girls. Follow the international body of research dedicated to female participation in sport such as keeping girls in the game, also acknowledging coaching considerations for females and higher-level coaching performance. These resources can be used to help draft an athletic pathway specifically aimed at the established and rapidly growing female game in Connacht.
- Development of a specific set of workshops on coaching female rugby players based on international best practice will enhance coaching expertise and have a positive impact on female engagement and retention.

Appropriate Player Developmental Policy

- A review of the current IRFU LTPD Pathway as a starting point for CRC&C to draft a best practice policy for clubs may be beneficial. External resources for long term player development similar to the Sport Ireland Pathway should be considered. The review should include an auditing of how competitions can be used appropriately to enhance a player's developmental pathway from adolescent to adult.

Social Identity and Peer Support

- Player organized and player led initiatives are also valuable in developing athletic leadership in a team.
- Bonding activities like facilities upgrades (designing, fundraising and volunteer labour by players and staff), charitable community work and drafting a set of "club values" can enhance a sense of value and identity among players.
- Resources are available for suggested actions to enhance Peer involvement.
- Monitoring tools to assess and encourage positive peer support may be incorporated into club structure. This could be introduced via a set of club "values" based on inclusion and respect, with a designated "values officer" as a support for coaches and players alike.

Positive Influence of the Parent

- In addition to the comprehensive IRFU guidelines on child welfare external resources should be explored to aid parent/ coach relationships and gain valuable expertise in caring for the student athlete: Engaging Parents in Sport, Non-perfect Dad, Working with Parents in Sport and Parental Autonomy Support

- Exploring coach confidence in engaging effectively with parents via simple surveys could prove beneficial in improving lines of communication and highlighting common modifiable issues being experienced.

Equal opportunity and accessibility

- In reviewing club standards on providing quality experience and accessibility for all, external resources could be explored in the context of cost, accessibility, and time commitment.
- [Gaining feedback from clubs and a review of current guidelines by CR&C may lead to a best practice statement for clubs to maximize and promote ease of access and equal opportunity for all to play and continue to play rugby.](#)

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APPENDIX:

i)

- **Database search:** EBSCOhost (Academic Search Complete, MEDLINE, PsycINFO, SPORTDiscus with Full text, UK & Ireland Reference Centre), Scopus, PUBMED and Web of Science.

Example of database used in search strategy.

ii)

Table describing key words any synonyms used in the search strategy

Keyword	Synonyms
Retention	“Retention” or “retain” or “participat*” or “drop-out” or “dropout” or “barriers” or “attrition”
Sports	“Sport*” or “rugby” or “team sport*” or “athletics”
16-20 year olds	“Adolescen*” or “teenag*” or “young adult”

iii)

Table outlining inclusion/ exclusion criteria for harvested papers

Inclusion	Exclusion
Teenage, adolescent, or young adult, male or female which incorporate the 16-20 age range.	Children (cohorts with a maximum age of ≤17 years).
Western European cultural background	All others
Specifically a competitive sporting context*	Physical activity/ exercise
Factors associated with Drop-out/ retention	Factors increasing participation/ uptake
Published qualitative studies, quantitative studies, mixed method approaches	Non peer reviewed, magazine articles, commentaries, narrative reviews, systematic reviews**

- iv) Table illustrating critical appraisal checklist to ensure quality of research for included papers.
Find full rationale behind quality checklist criteria [here](#).

Critical appraisal checklist for quality of research	
1	Clear statement of aims
2	Was research method appropriate to study aims?
3	Did study design addresses aim?
4	Based in a valid theoretical framework?
5	Are limits of Theoretical framework scope discussed in the findings?
6	Appropriate participant recruitment strategy to address aims?
7	Was the data collection method sufficiently rigorous?
8	Suitable rigor applied to data analysis?
9	Clear statement of findings?
10	Do authors mention how findings may build on current research?



Appendix 4

Database analysis executive report

Connacht Rugby Player Retention and Volunteer Recruitment Research Programme

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Phase 1- Database Analysis Report

01/05/2020



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EXECUTIVE SUMMARY



PROJECT BACKGROUND

The Connacht Rugby Age Grade Committee approached the University of Limerick through the “UL Beo” initiative (Department of Physical Education and Sports Sciences) to examine ways that the branch could support the underage player pathway to better facilitate the playing experience, reduce drop out and ultimately see more players playing at all ages and continuing to adulthood as participants in rugby at all levels.

These goals would be in line with the IRFU and Sport Ireland commitments to the Lifelong Involvement in Sport and Physical Activity Models and to help build the base of the performance pyramid.

This project was supported by the Lifes2Good foundation. One of its aims is to support community initiatives in the West of Ireland and the foundation recognises the critical importance that local community sport plays in the wellbeing of people and the physical and social health of communities.

AIMS

This exploration of the player database is the first part of a work package that will continue to examine the issues surrounding older adolescent player drop out and retention within Connacht through (a) conducting a review of relevant guidance from existing research, and (b) investigating stakeholder (i.e., current and former players, coaches, parents) perceptions relating to player retention through a series of focus groups.

The intention of this analysis is to provide data which will:

- a. Inform current policies surrounding player development.
- b. Inform the drawing up of a convention for best practice in tracking and monitoring player progression.
- c. Inform the design of stakeholder focus groups.



PRINCIPLE FINDINGS

- The greater number of appearances a player records, the greater likelihood of retention.
- Playing for both school and club has a positive influence on continued club rugby participation.
- Playing more than one age grade has a positive influence on 1- and 2-year retention in adolescents.
- Relative age (birth quartile) has no influence on participation or number of appearances in club rugby in Connacht.

RECOMMENDATIONS

- Prioritize all players achieving multiple appearances. Even a modest increase in appearances (2-4 games) could increase players' likelihood of retention.
- Review efforts to encourage players participating in schools' rugby who are not affiliated with a club to become affiliated with a club/maintain club affiliation.
- Given the apparent positive influence of playing up an age grade and the inappropriateness of such a step for all players, reflect upon what other avenues might be explored to help all players to see the pathway ahead of them and to encounter role models for their development.
- Continue with current practices related to relative age and participation.
- With the continued growth of the female game, careful attention should be given to accurate and complete data collection to facilitate analysis of relevant trends.
- The data covers short term (1- and 2-year) trends; as the database grows, explore whether longer term trends are consistent with these findings.
- Now that a data processing and analysis framework has been established, explore in-house mechanisms, or collaborations with higher education institutions, to update analyses on an annual basis.
- Explore what information within the report can be shared with individual clubs (and how it should be shared), to highlight positive messages regarding retention, relative age etc.)
- Review messaging to clubs around correct uploading of player and competition data to Connacht database to support the collection of full and high-quality data for future analyses.

LIMITATIONS

- "Appearances" refer to names listed on team-sheets and may not reflect actual "game time"
- Female data is limited to very few clubs and only two age grades.
- Incomplete data within some clubs.

DATABASE ANALYSIS OVERVIEW

The database maintained by Connacht Rugby Club and Community contains a range of information on each player. In order to increase reliability in the database, club downloads had to be filtered. The analysis process involved:

- Select most reliable format of download data (crosscheck against all formats on SPORTLOMO).
- Amalgamate entries to provide one record per player.
- Find, address and record any errors (players of same name, no ID number, age grade incorrect, etc).
- Match players across season to determine retention.

In all over 33,000 entries were processed. 1.8% of these were excluded due to unresolvable errors (e.g., 15-year-old playing in an U13 competition).

For the purposes of this analysis, we focused upon IRFU ID number, gender, school and/or club played for, age grade, and appearances (fig. 1)

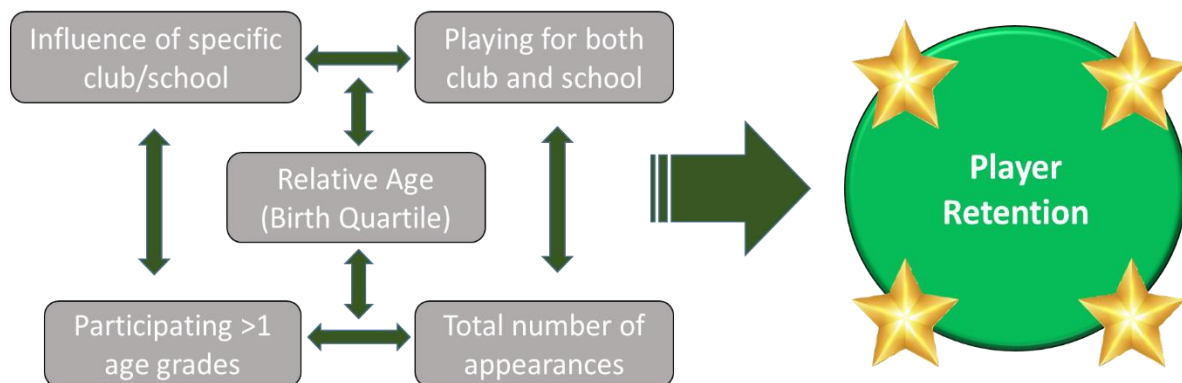


Figure 1: Illustration of the variables examined to whether they impacted upon player retention.

QUESTIONS

These variables allowed us to ask the following questions;

- Is there relationship between the number of games played in a year (appearances) and player retention the following year?
- Does playing for both school and club influence retention relative to playing for club only or for school only?
- Does playing across multiple age grades influence subsequent retention?
- Does relative age influence participation in adolescent rugby in Connacht?
- How do specific clubs compare on their retention rates?

FINDINGS

A. There appears to be a positive relationship between the number of games played in a year (appearances) and player retention in the following year.

(i). Overall influence of appearances on retention.

Table A1: Median appearances and total number of players across all clubs for each year. Firstly, 2015 median game numbers are less than other years, especially U-13 and U-19. This discrepancy may indicate the total data may be incomplete. If we take 2016 and 2017 adolescents typically play 5-10 games per season.

	Median appearances and total number players per season					
	2015		2016		2017	
	Median	N players	Median	N players	Median	N players
U13	3	412	8	336	8	319
U14	6	319	9	417	8	448
U15	7	351	9	331	9	412
U16	4	395	8	377	5	618
U17	7	251	10	282	10	314
U18.5	3	237	6	553	5	600

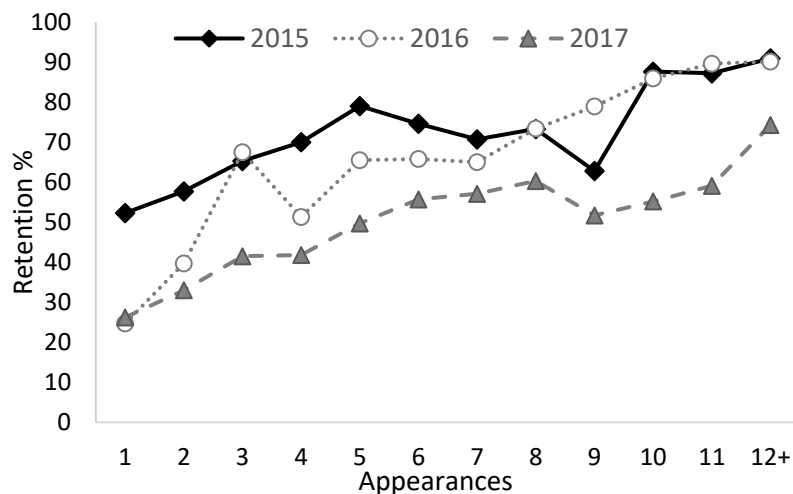


Figure A2: Illustrates the relationship between median number of appearances and the likelihood of retention the subsequent year.

Figure A2 indicates that the higher number of appearances an individual records, the more likely they are to be retained the following year.

Although the numbers differ across years, perhaps due to completeness of recording of appearances, the trend is consistent.

Key Point: More appearances = More likely to be retained

(ii). Appearances and likelihood of retention is explored further here. The median number of appearances for a player in one season is mapped against whether they were retained or unlisted the following season.

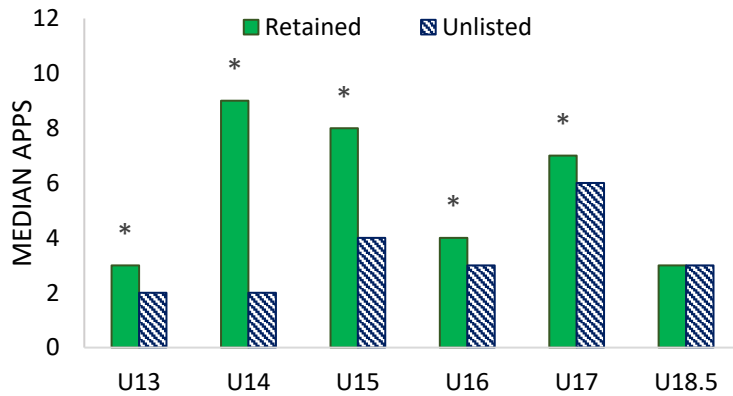


Figure A3: Appearances in 2015 and retention the following year (+1).

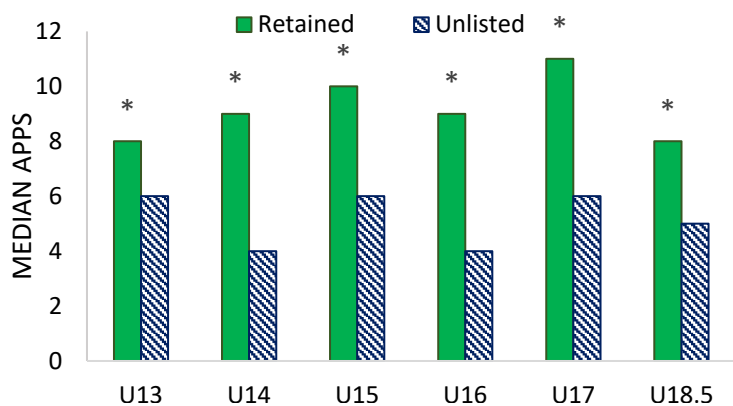


Figure A4: Appearances in 2016 and retention the following year (+1).

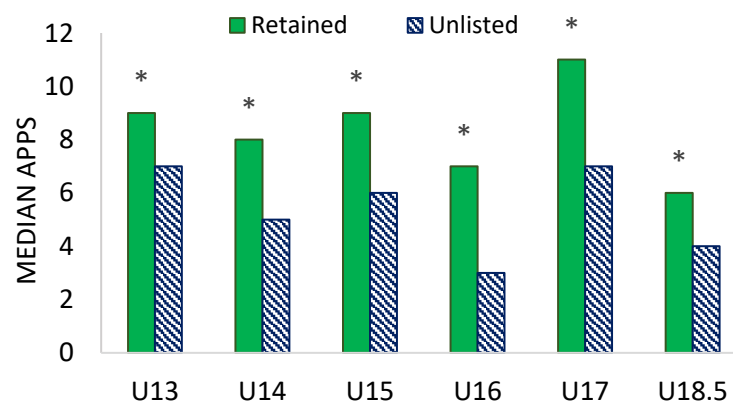


Figure A5: Appearances in 2017 and retention the following year (+1).

Note:
*denotes statistical significance. This indicates that the difference between numbers of appearances is unlikely to have occurred by chance variation alone.

Figure A3 illustrates once again the lower amount of appearances in 2015 data. Nonetheless, in all bar the u18.5 age grade we see increased retention rate associated with higher median appearances.

This association is repeated in 2016 (fig. A4) and 2017 (fig. A5).

Across age grades and seasons, players who are retained consistently report a higher number of appearances than players who are not retained.

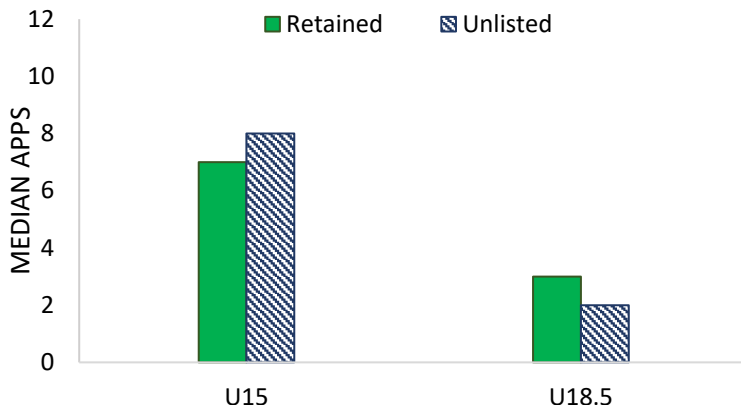


Figure A6: Female appearances 2017 and retention the following year (+1)

Female data is limited (fig. A6). 2017 seems to be the most complete year to illustrate. The pattern of increased appearances and retention is not replicated in the female data.

The median appearances, particularly at U18.5, is markedly lower than the equivalent male data.

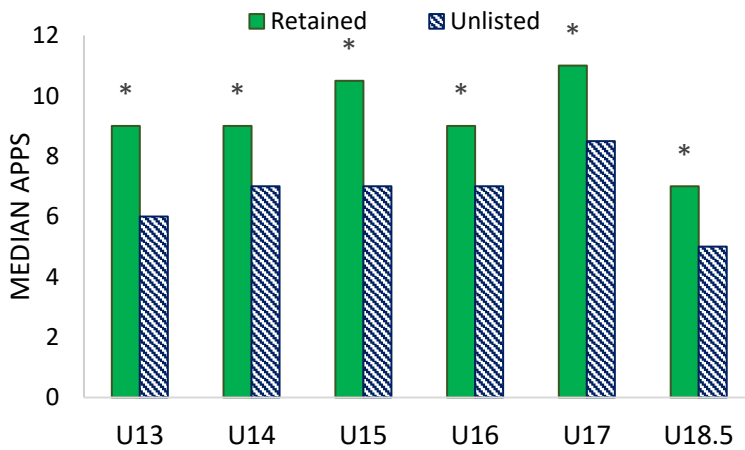


Figure A7: Appearances in 2016 and retention 2 years later (+2)

The pattern of individuals who are retained recording more appearances is echoed in longer term retention.

Fig. A7 illustrates that players who were still playing in 2018/19 typically made between 2-4 more appearances in 2016/17 than those who were not retained, suggesting even small increases in appearances may be valuable.

While 2015 data appears to be less complete than its succeeding years, the pattern of retention is largely replicated after +3 seasons (fig. A8).

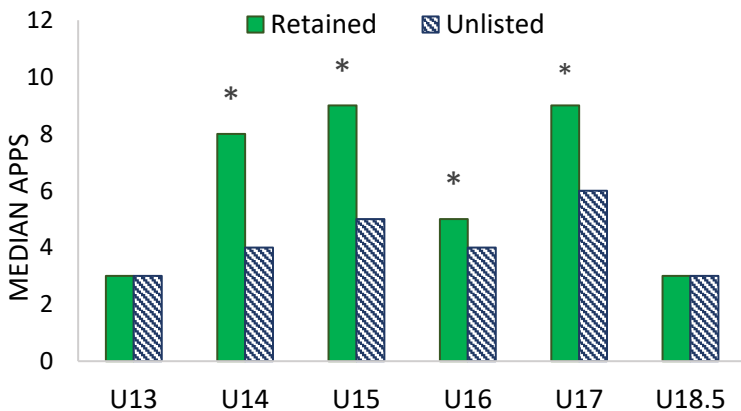


Figure A8: Appearances in 2015 and retention 3 years later (+3).

KEY POINT: More appearances = more likely to be retained even after 2 and 3 years.

B. Playing for both school and club influences retention positively relative to playing for club only or for school only.

(i). Individuals who played for both club and school at U16, U17 and U18.5 were **more likely** to be still playing rugby one year later than individuals who only played for a single venue. Exemplar data from 2017 is provided below.

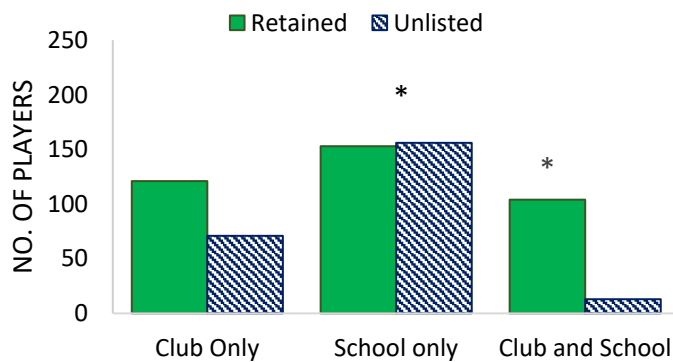


Figure B1: 2017 U-16 retention by playing venue

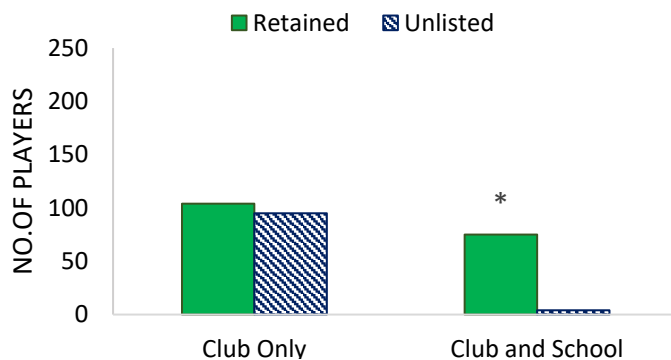


Figure B2: 2017 U-17 retention by playing venue

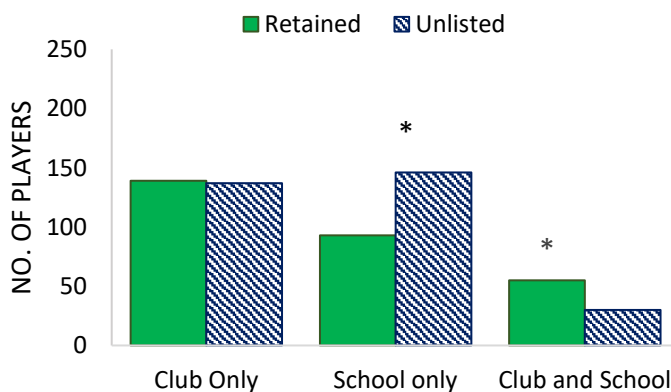


Figure B3: 2017 U-18.5 retention by playing venue

Note:
*denotes statistical significance. This indicates that the association between appearing for both school and club and retention is unlikely to occur by chance alone.

U-16 data (fig. B1) regarding playing venue and retention illustrates that "School only" players are less likely to be retained (49.5%) and more likely to be unlisted (50.5%) than expected, while "Club and school" players are less likely to be unlisted (11.1%) and more likely to be retained (88.9%) than expected.

While there were no individuals in the U-17 age-grade (fig. B2) playing school only, those who played for both were more likely (94.9%) to be still playing one year later than those who played for school only (52%).

U-18.5 (fig. B3) follow the U-16 trend toward retention with players more likely to be retained the following year if an individual played for school and club (67.7%) compared to playing for school only (38.9%).

(ii). Longer term (+ 2 years) illustrates that playing for both school and club in 2016 increased the likelihood that an individual will continue to participate in subsequent seasons.

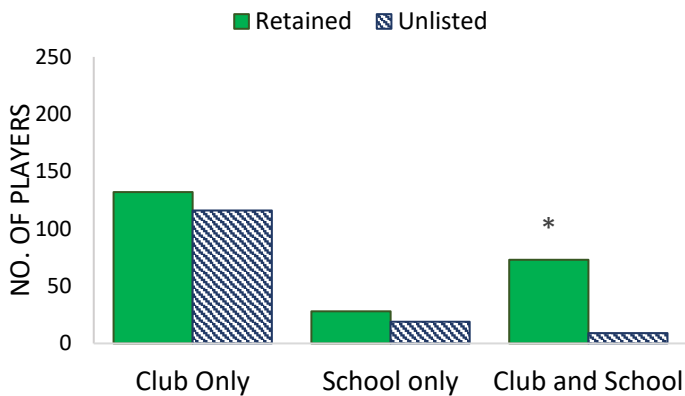


Figure B4: 2016 U-16 retention by playing venue after 2 years (+2).

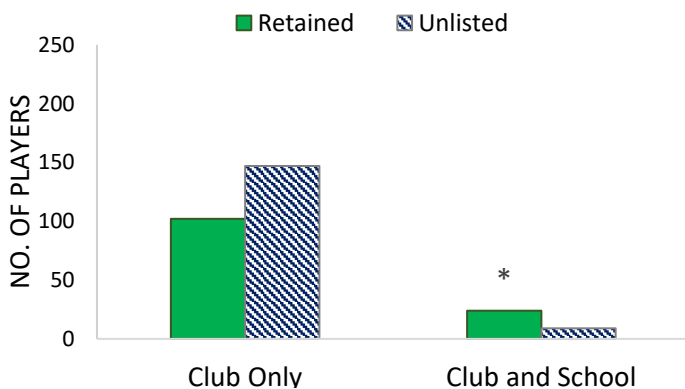


Figure B5: 2016 U-17 retention by playing venue after 2 years (+2).

U-16+2 (fig. B4) retention by playing venue, echoes the trend has been observed after +1 year. Players are more likely to continue participation when playing for both school and club (89% retention) than school only (59.6% retention) or club only (53.2% retention).

Once again no individuals play school only at the U-17 age-grade (fig. B5). Those who played at both venues were more likely to continue (72.7% retention) than those who played club only, who were more likely to be unlisted (59%) and less likely to be retained (41%) after 2 years.

U-18.5 age-grade (fig. B6) illustrates the positive effect of playing for both school and club (51.5% retention). "Club only" players (35.4%) and "School only" players (25.4%) are less likely to be retained after 2 years.

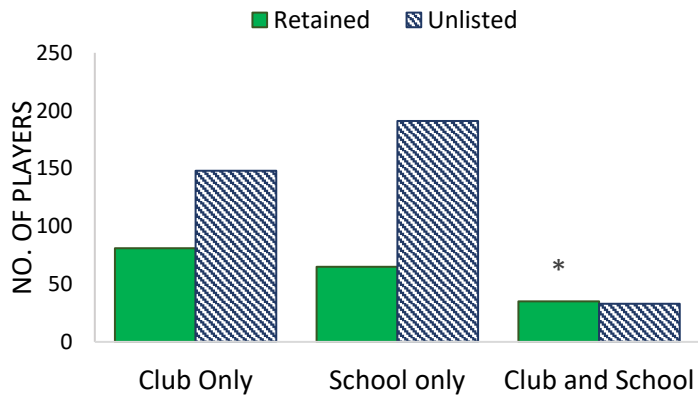


Figure B6: 2016+2 U-18 retention by playing venue

KEY POINT: Playing for both club AND school statistically increases likelihood of being retained both 1- and 2-years later.

C. Playing across multiple age grades increases likelihood of subsequent retention.

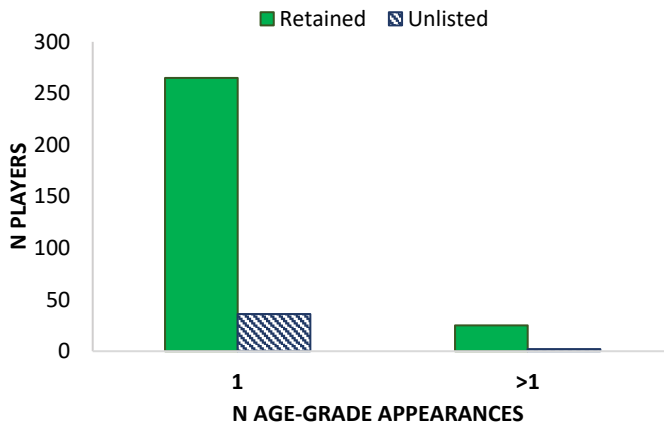


Figure C1: 2017 U-13 multi age-grade retention

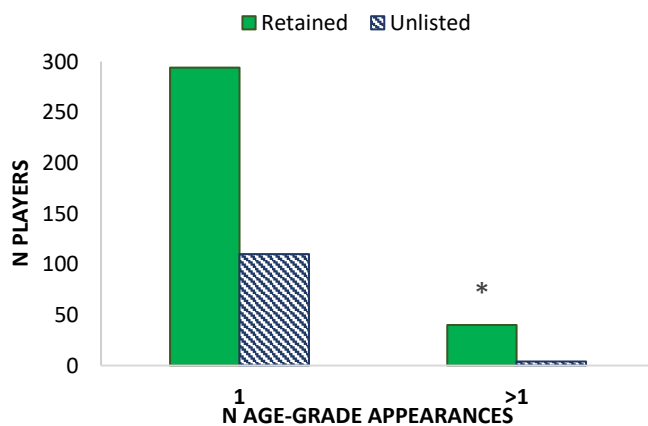


Figure C2: 2017 U-14 multi age-grade retention

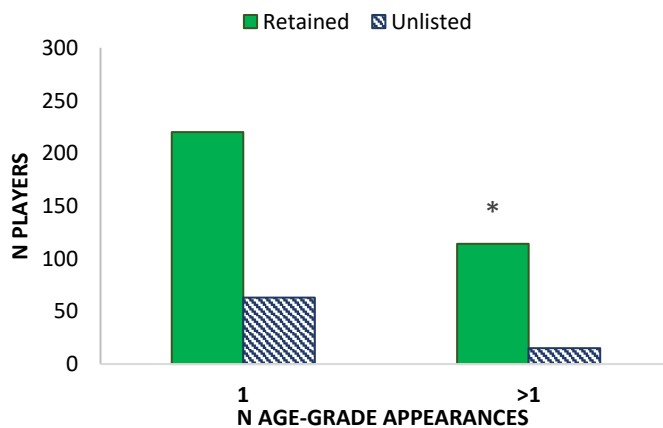


Figure C3: 2017 U-15 multi age-grade retention

Note:

* denotes statistical significance. This indicates that the association between playing in **more than one** age grade and retention is unlikely to occur by chance alone.

Once again 2017 data is being used as the exemplar year to illustrate the relationship between playing more than 1 age grade and retention.

U-13 data (fig. C1) regarding playing multi age-grade and retention illustrates, as maybe expected, that there is only a small proportion playing above their age grade (8.5%), and doing so does not influence the likelihood of retention compared to playing in one age grade.

In the U-14 data (fig C2) a similar portion of players are participating in more than one age grade (9.8%). There is high retention for all players, however the chances of retention in those individuals that played more than one age grade (91%) is significantly better than those that played only in one (72.8%).

The U-15 data (fig. C3) again shows greater retention in those who participated in more than one age grade (88.4%) than those playing in one only (77.7%). U-15 also reports a jump in the number of players participating in more than one age grade overall (31.3%).

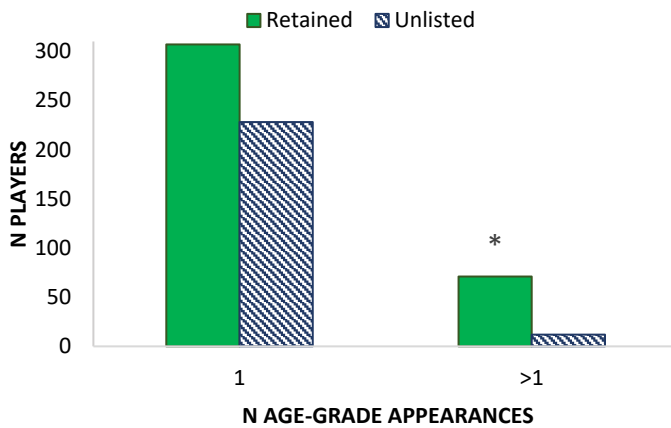


Figure C4: 2017 U-16 multi age-grade retention

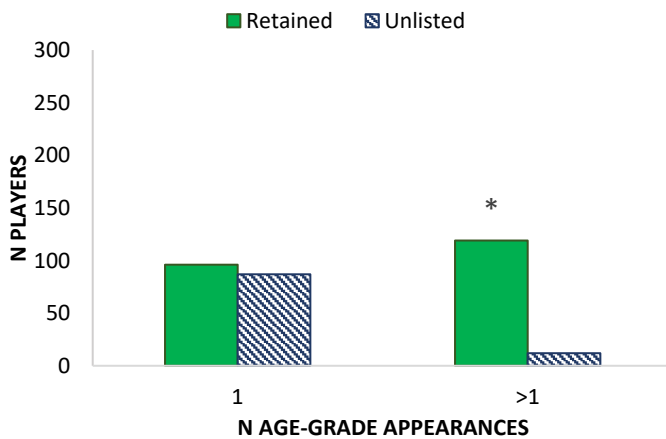


Figure C5: 2017 U-17 multi age-grade retention

U-16 (fig. C4) data for multi age grade appearances shows a return to lower numbers overall playing more than one age grade (13.4%).

Nevertheless, playing in more than 1 age grade points to increasing likelihood of retention the following year (85.5%) compared to those who played only one age grade (57.4%).

At U-17 level (fig. C5), playing for more than 1 age grade is much more common (41.7%).

U-17 players who appeared in more than 1 age grade had a higher retention rate (90.8%) than those who appeared in just one age grade (52.5%).

Note: Retention data on age grade appearance illustrated here is available in the appendix (Table 2(i)).

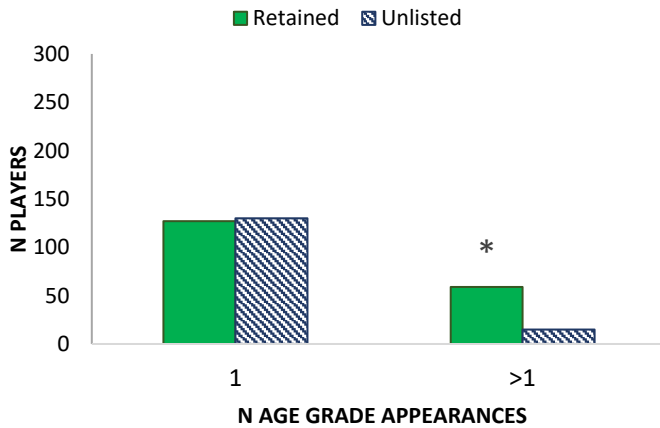


Figure C6: 2016 U-15 multi age-grade retention after 2 years.

2017 data indicates that there is a positive relationship between playing more than one age grade and retention. How does this relationship look after two years?

Data for 2016 retention after two years (+2) indicates a similar trend. Fig. C6 shows U-15s that played in more than one age grade were still more likely to be retained two years later (79.7%), than those that played in one, who were more likely to be unlisted after two years (49.4%).

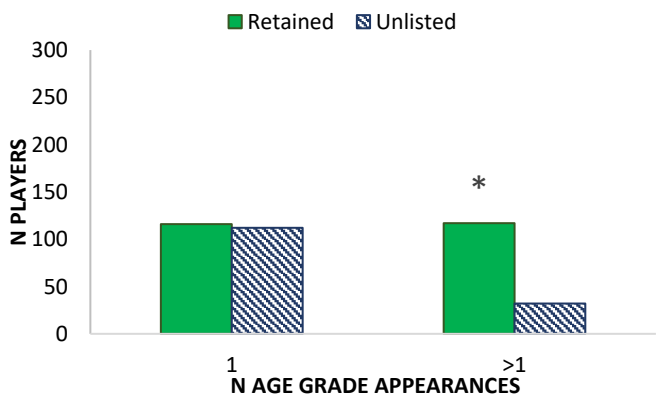


Figure C7: 2016 U-16 multi age-grade retention after 2 years

In 2016+2 U16 retention data (fig. C6), players who appeared in more than one age grade were still much more likely to be retained after two years (78.5%) than those that played in a single age grade (50.9%).

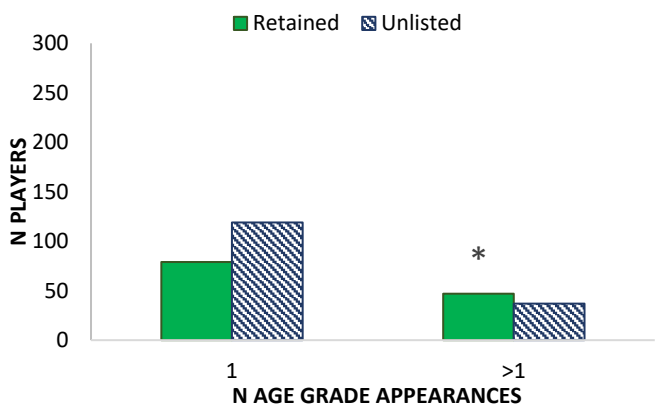


Figure C8: 2016 U-17 multi age-grade retention after 2 years

In the 2016+2 U17 retention data (fig. C7), players who appeared in more than one age grade were more likely to be retained after two years (55.6%) than those that played in one (39.9%).

Overall, this data suggests that playing in more than one age grade has a positive influence on continued participation over a longer period of two years.

While is not appropriate for all young adolescents to play up an age grade due to maturity, size and ability to earn places, it appears to be beneficial for continued participation for those who are capable of exploiting the opportunity. Some of this benefit may be due to the opportunity for players to see the pathway ahead of them and to encounter role models for their development. Ideally, this opportunity to see the pathway and encounter role models would be afforded to all young players.

KEY POINT: Players appearing in multiple age grades is associated with improved one-year and two-year retention.

D. Relative age has no apparent influence on participation in adolescent rugby in Connacht.

(i). What is the relative age effect (RAE)? The relative age effect is a phenomenon in which children born close to a critical age cut-off period (e.g., January 1st for rugby) may have an advantage in athletic pursuits due, in part, to increased growth relative to their peers¹. In certain sports, individuals born in the early part of the year have been found more likely to persevere in sport. More information regarding RAE can be found [here](#).

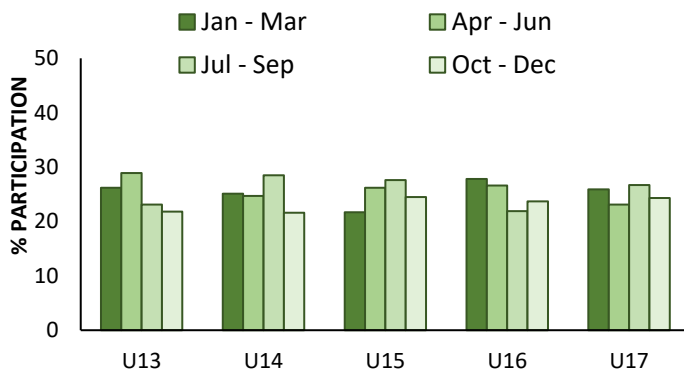


Figure D1: 2015 participant birth quartiles

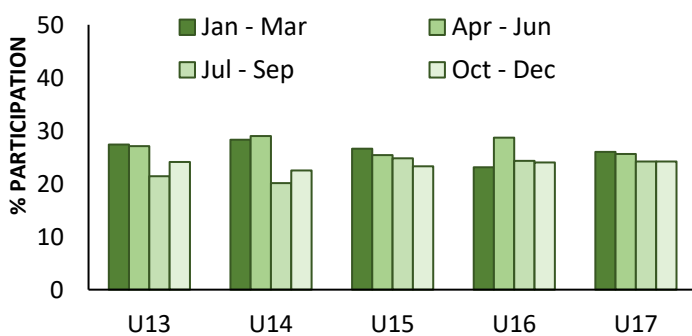


Figure D2: 2016 participant birth quartiles

Fig. D1 shows the proportion of players born in each quarter of the year for the age grades U13 to U17.

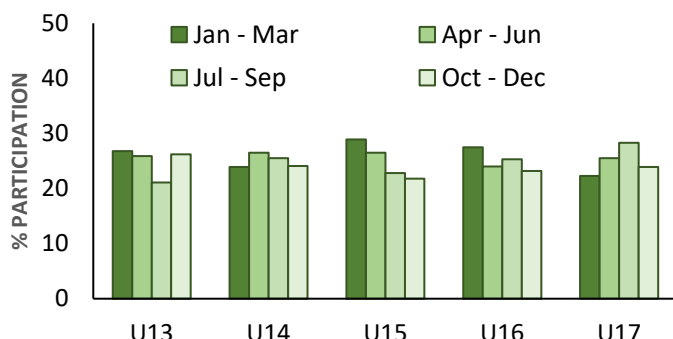
The distribution of participant birth quartiles is similarly distributed to national birth quartiles for the years 1996-2005 (see appendix, Figure 4(i)). The variation observed is within the bounds of that expected by chance.

These results suggest no bias toward those born in any one quartile.

Fig. D2 and D3 demonstrate that this result is also apparent for the 2016/17 and 2017/18 seasons.

This pattern indicates that Connacht rugby clubs are allowing equal opportunity to play regardless of relative age.

Note: U-18.5 male data is not considered due to 18-month window.



KEY POINT: Relative age effect is not a factor within club rugby in Connacht.

Figure D3: 2017 participant birth quartiles

(ii). Relatively older players do not report more appearances than relatively younger players.

Although relative age might not influence club membership, it may have a subtle influence in that relatively older players might make more appearances. The data from Connacht Rugby Club and Community shows no evidence of this, further demonstrating that Connacht clubs and coaches are effectively managing any relative age-related demands.

Table D5: Distribution of median appearances for all quartiles in 2015 show no obvious pattern of bias toward third and fourth quartiles.

2015	Jan - Mar		Apr - Jun		Jul - Sep		Oct - Dec	
	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances
U13	26.2%	3	28.9%	3	23.1%	3	21.8%	3
U14	25.1%	8	24.7%	6.5	28.5%	7	21.6%	6
U15	21.7%	7	26.2%	8	27.6%	6	24.5%	7
U16	27.8%	5	26.6%	4.5	21.9%	5	23.7%	5
U17	25.9%	7	23.1%	6	26.7%	7	24.3%	7

Table D6: Distribution of median appearances for all quartiles in 2016 show no obvious pattern of bias toward third and fourth quartiles.

2016	Jan - Mar		Apr - Jun		Jul - Sep		Oct - Dec	
	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances
U13	27.4%	7	27.1%	7	21.4%	9	24.1%	9
U14	28.3%	9	29.0%	8	20.1%	10	22.5%	9
U15	26.6%	8	25.4%	10	24.8%	10	23.3%	9
U16	23.1%	9.5	28.7%	9	24.3%	9	24.0%	9
U17	26.0%	10	25.6%	9	24.2%	9	24.2%	11

Table D7: Distribution of median appearances for all quartiles in 2017 show no obvious pattern of bias toward third and fourth quartiles.

2017	Jan - Mar		Apr - Jun		Jul - Sep		Oct - Dec	
	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances	% Players	Median Appearances
U13	26.8%	8	25.9%	8	21.1%	9	26.2%	8
U14	23.9%	9	26.5%	8	25.5%	7	24.1%	7
U15	28.9%	8	26.5%	9	22.8%	9	21.8%	8
U16	27.5%	8	24.0%	9	25.3%	7	23.2%	9
U17	22.3%	10	25.5%	11	28.3%	9	23.9%	9

KEY POINT: All age quartiles have equal opportunity to play.

E. Specific club retention rates compared to the following year and to subsequent years. Full tables can be seen in appendix.

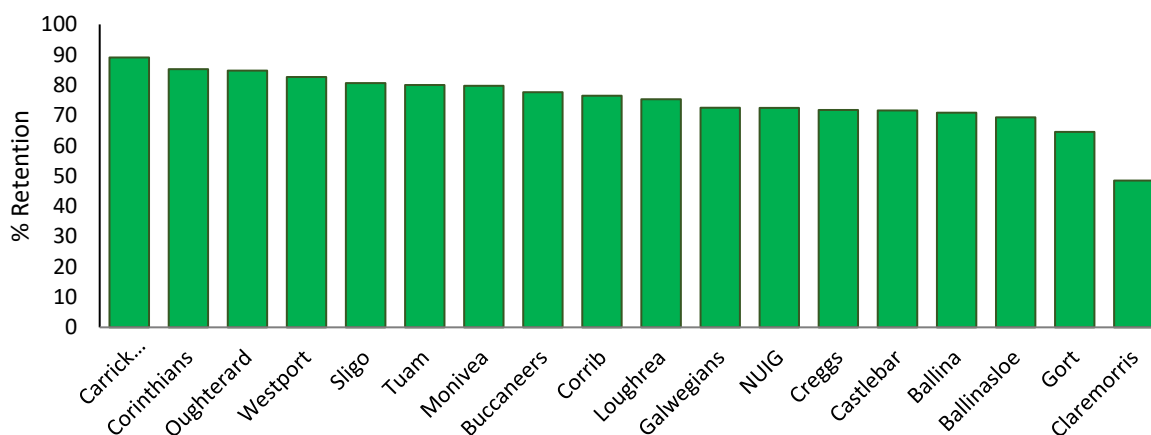


Figure E1: 2015+1 retention by club. *Ballinrobe excluded due to incomplete data. **Dunmore excluded due to no data. ***Connemara excluded due to no data.

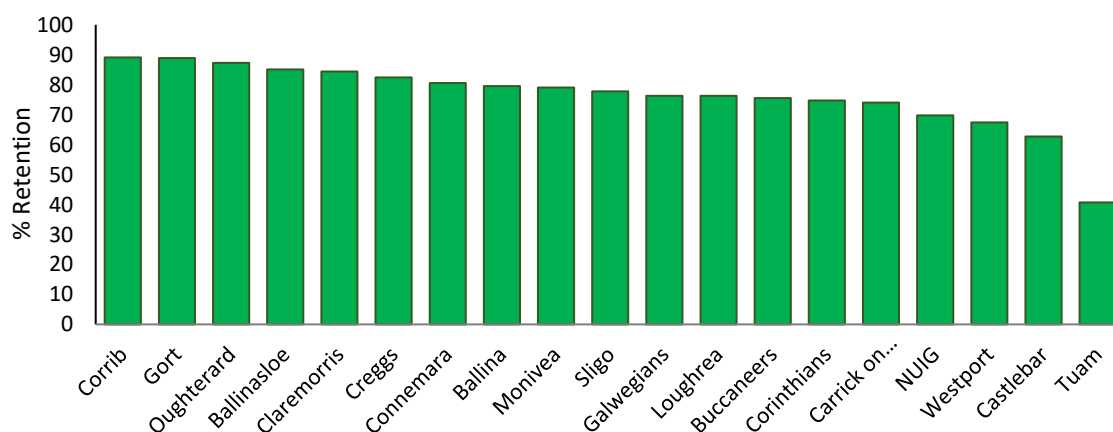


Figure E2: 2016+1 retention by club. *Ballinrobe excluded due to incomplete data. **Dunmore excluded due to no data.

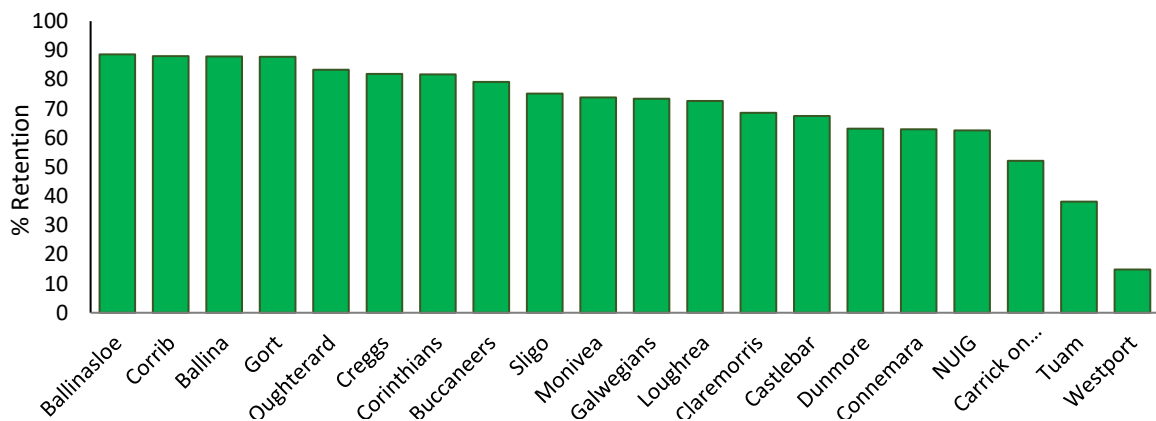


Figure E3: 2017+1 retention by club. *Ballinrobe excluded due to incomplete data. Note that Westport show drop-off from previous years which may be due to incomplete 2018 data.

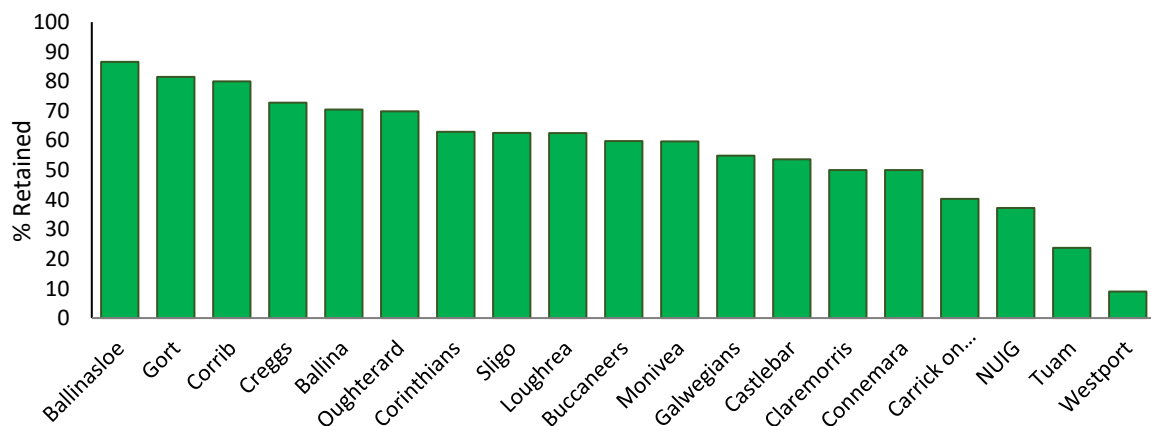


Figure E4: 2016+2 retention by club. *Ballinrobe excluded due to incomplete data. Note that Westport once again show drop-off from 2016 to 2018 which may be due to incomplete 2018 data.

- Important to note that incomplete data may be a factor in overall retention numbers.
- While adult transition data is accounted, for U-20 transition is not as it is incomplete.
- There is some variability in retention between clubs.
- The reliability of club retention numbers depends upon the accuracy and consistency of monitoring.
- These figures could be utilized for setting club retention targets and monitoring those targets over a longer term.

KEY POINT: Complete data for club participation in all competitions and age grades is essential for true reflection of retention rates



LIMITATIONS

Three principal limitations should be considered:

- (1) “Appearances” refer to names listed on team-sheets and may not reflect actual “game time”
While playing time would be a more complete measure of a player’s involvement within rugby, the finding that team sheet appearances were still related to retention justifies their value as a measure.
- (2) Female data is limited to very few clubs and only two age grades.
There were insufficient numbers to complete inferential statistical analyses on most of the female data.
- (3) Incomplete data within some clubs.
All database analysis requires complete and accurate reporting of data, which in turn requires buy in for club administrators.

LESSONS LEARNED FROM THE DATABASE ANALYSIS

The greater number of appearances a player records, the greater likelihood of retention. Therefore, across all age grades, it is important to prioritize all players achieving multiple appearances. Even modest increases in appearances (2-4 games) could increase players’ likelihood of retention.

Playing for both school and club has a positive influence on continued club rugby participation. As such, consideration should be given to review efforts to encourage players participating in schools’ rugby who are not affiliated with a club to become affiliated with a club, and for players who focus solely on schools’ rugby during certain age grades (e.g., U16, U18.5) to maintain club affiliation.

Playing more than one age grade has a positive influence on 1- and 2-year retention in adolescents. While relatively few players compete across age grades during early adolescence, this question becomes more important at U16 and U17. Due to a variety of factors including maturation, interest, and player numbers, playing multiple age grades is not suitable for all players. However, given the apparent positive influence of playing up an age grade, Connacht Rugby Club and Community should reflect upon what other avenues might be explored to help all players at late adolescence in particular to more clearly see the pathway ahead of them and to encounter role models for their development.



Relative age (birth quartile) has no influence on participation or number of appearances in club rugby in Connacht. Given the well-established influence of relative age on general participation in rugby union in Wales² and rugby league in the United Kingdom³, the absence of relative age effects in Connacht is a positive finding. Connacht Rugby Club and Community should continue with current practices related to relative age and participation at the grassroots level.

The relatively low level of participation in the female game makes analysis difficult. However, with the continued growth of the female game, careful attention should be given to accurate and complete data collection to facilitate analysis of relevant trends which might guide this further growth.

The data covers short term (1- and 2-year) trends. It is possible that factors which facilitate retention in the short term (e.g., playing multiple age grades; playing on both school and club teams) may have weaker or even negative longer-term influences. There is currently insufficient data to understand these longer-term consequences. As the database grows, Connacht should explore whether longer term trends are consistent with the findings reported for short term effects on player retention.

Now that a data processing and analysis framework has been established, Connacht Rugby Club and Community should explore means by which these analyses might be updated on an annual basis. Such means might include in-house mechanisms undertaken by Connacht Rugby staff using the processes devised through this project, or collaborations with higher education institutions (e.g., final year dissertation students, or placement students).

Connacht Rugby Club and Community should explore what information within the report can be shared with individual clubs, and the format in which it should be shared, to highlight positive messages such as those relating to player retention and relative age, for example. Sharing this information may be of assistance in maintaining and developing club support for the collection of full and high-quality data for future analyses.

In relation to future focus groups, the database analysis has (a) established baseline data against which stakeholder perceptions may be interpreted, and (b) generated data which may be used as prompts within stakeholder focus groups.



ACKNOWLEDGEMENTS

The authors would like to acknowledge the staff at Connacht Rugby Club and Community, namely, Luke Murphy, Richard Doyle, Lyndon Jones and Joe Gorham for their work and continued support in facilitating the drafting of this report and look forward to continued collaboration in helping to enhance the profile and environment of club rugby in Connacht.

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3. Coble, S. P., & Till, K. (2017). Participation trends according to relative age across youth UK Rugby League. *International Journal of Sports Science & Coaching*, 12(3), 339–343. Available from: <https://journals.sagepub.com/doi/abs/10.1177/1747954117710506>

Appendix:

Table F(i): Breakdown of age grade appearance data exemplar year 2017 for individuals playing 1 age grade and more than 1 age grade.

2017 season	U-13		U-14		U-15		U-16		U-17	
	unlisted	Retained	unlisted	Retained	unlisted	Retained	unlisted	Retained	unlisted	Retained
Played 1 age grade	36	256	110	294	63	220	228	307	87	96
	12.3%	87.7%	27.2%	72.8%	22.3%	77.7%	42.6%	57.4%	47.5%	52.5%
Played >1 age grade	2	25	4	40	15	114	12	71	12	119
	7.4%	92.6%	9.1%	90.9%	11.6%	88.4%	14.5%	85.5%	9.2%	90.8%

Table F(ii): Breakdown of age grade appearance data for 2016 +2 years for individuals playing 1 age grade and more than 1 age grade.

2016 season (+2)	U-15		U-16		U-17	
	unlisted	Retained	unlisted	Retained	unlisted	Retained
Played 1 age grade	130	127	112	116	119	79
	50.6%	49.4%	49.1%	50.9%	60.1%	39.9%
Played >1 age grade	15	59	32	117	37	47
	20.3%	79.7%	21.5%	78.5%	44.0%	56.0%

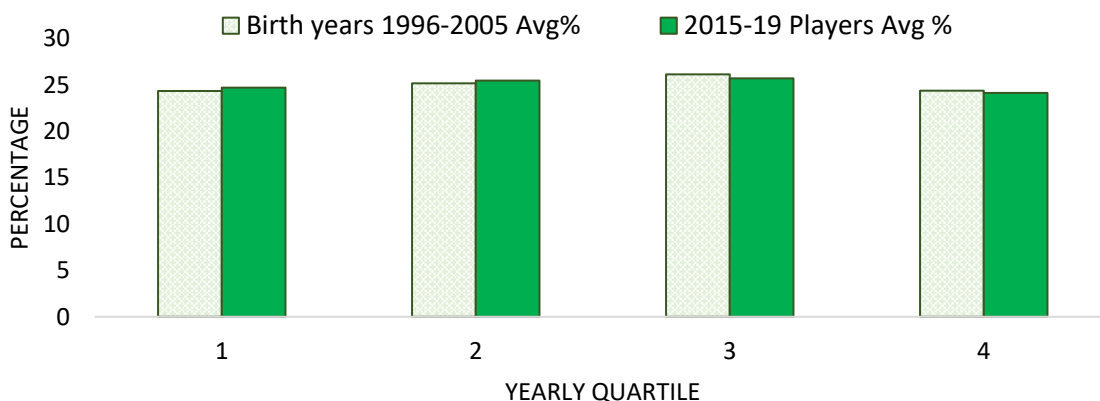


Figure F(iii): Comparison of the average national birth quartiles for 1996-2005 and the average birth quartiles for adolescent club rugby players in Connacht from 2015-2019. Note that distribution is almost identical and is a true reflection.



Table F(iv): 2015 club retention data for +1, +2, +3 seasons. *Ballinrobe omitted, incomplete data. **Dunmore omitted. ***Connemara omitted.

2015	Retained +1		Retained +2		Retained +3	
	%	Count	%	Count	%	Count
	Ballina	70.9%	124	63.4%	111	57.1%
Ballinasloe	69.3%	70	61.4%	62	61.4%	62
Buccaneers	77.6%	97	70.4%	88	56.8%	71
Carrick on Shannon	89.1%	49	65.5%	36	30.9%	17
Castlebar	71.6%	73	54.9%	56	40.2%	41
Claremorris	48.5%	47	48.5%	47	27.8%	27
Corinthians	85.2%	121	68.3%	97	57.0%	81
Corrib	76.5%	26	76.5%	26	70.6%	24
Creggs	71.7%	99	58.0%	80	52.2%	72
Galwegians	72.5%	116	55.6%	89	42.5%	68
Gort	64.5%	20	67.7%	21	61.3%	19
Loughrea	75.3%	67	58.4%	52	50.6%	45
Monivea	79.7%	63	70.9%	56	63.3%	50
NUIG	72.4%	63	56.3%	49	36.8%	32
Oughterard	84.7%	50	76.3%	45	57.6%	34
Sligo	80.6%	129	64.4%	103	53.8%	86
Tuam	80.0%	36	46.7%	21	24.4%	11
Westport	82.6%	38	73.9%	34	10.9%	5



Table F(v): 2016 club retention data for +1, +2 seasons.

*Ballinrobe omitted, incomplete data.

2016	Retained +1		Retained +2	
Ballina	79.5%	132	70.5%	117
Ballinasloe	85.1%	57	86.6%	58
Buccaneers	75.5%	139	59.8%	110
Carrick on Shannon	74.0%	57	40.3%	31
Castlebar	62.7%	69	53.6%	59
Claremorris	84.4%	54	50.0%	32
Connemara	80.6%	29	50.0%	18
Corinthians	74.7%	127	62.9%	107
Corrib	89.1%	49	80.0%	44
Creggs	82.4%	103	72.8%	91
Dunmore	0.0%	0	0.0%	0
Galwegians	76.3%	164	54.9%	118
Gort	88.9%	24	81.5%	22
Loughrea	76.3%	61	62.5%	50
Monivea	79.0%	98	59.7%	74
NUIG	69.8%	60	37.2%	32
Oughterard	87.3%	55	69.8%	44
Sligo	77.8%	133	62.6%	107
Tuam	40.7%	24	23.7%	14
Westport	67.4%	60	9.0%	8



Table 3(vi): 2017 club retention data for +1 season.

*Ballinrobe omitted, incomplete data

2017	Retained +1	
Ballina	87.9%	145
Ballinasloe	88.6%	101
Buccaneers	79.1%	148
Carrick on Shannon	52.1%	37
Castlebar	67.4%	58
Claremorris	68.5%	61
Connemara	62.9%	39
Corinthians	81.8%	139
Corrib	88.0%	66
Creggs	81.9%	95
Dunmore	63.2%	12
Galwegians	73.4%	149
Gort	87.8%	43
Loughrea	72.6%	61
Monivea	73.8%	96
NUIG	62.5%	60
Oughterard	83.3%	70
Sligo	75.1%	133
Tuam	38.1%	8
Westport	14.8%	12

Appendix 5

Initial recruitment letter



Connacht Rugby Player Retention Research Programme

As part of the Connacht Rugby vision and strategy plan, we seek to enhance the immediate sporting environment and retain players of both genders. The emphasis is to provide a sustainable framework to increase community participation in rugby in Connacht for the medium to long term.

One of the key initiatives of this plan is to gain insight into stakeholder perceptions within our rugby community regarding barriers and facilitators to continued participation. The hope is to determine some context specific factors to inform decision making on policies and enhance our rugby landscape as we look to the future.

We have formed a partnership with the Department of Physical Education and Sports Sciences at the University of Limerick to help us achieve this. Dr Philip Kearney is a senior lecturer and researcher specializing in youth development, coaching and performance and Patrick McEvoy is a post-graduate research student in the department. They wish to extend this message to all in the wider Connacht rugby community:

We are seeking volunteers to participate in a series of focus groups. Volunteers will come from various backgrounds in rugby (current and former players, their parents and coaching staff). The aim of these groups is to uncover and unpack the various perspectives relating to rugby participation in Connacht.

The information gathered will be analysed and recommendations made, based on your perspectives. We hope these recommendations will enhance the rugby environment for all participants and stakeholders from grassroots to the highest level.

If you would like to find out more, please see the attached information sheet, which also includes our contact details. Please contact us by phone or email with any further enquiries.

Yours sincerely,

Phil Kearney

Faculty Member

Patrick McEvoy

Student Researcher

Appendix 6

Volunteer information sheet



Study Title: Connacht Rugby Player Retention Research Programme

Dear Volunteer,

Information regarding the current investigation into the various perspectives held by stakeholders in the rugby community in Connacht are detailed below.

What is the study about?

The study is about finding context specific factors and possible barriers regarding drop-out and continued participation in youth rugby in Connacht. The hope is to identify these factors and contribute to the development of policy based on these findings. The intention is to enhance the rugby environment in Connacht, increase player retention and help to develop a healthy future for club rugby and its wider community in Connacht.

What will I have to do?

If you volunteer to participate, you will be contacted and assigned a time and date to attend a focus group centred on issues relating to your perspective of participation in club rugby in Connacht. You will participate in an online meeting using Microsoft Teams from any location you choose. During the course of the focus group you will engage in an informal discussion and give your perspectives on various topics relating to rugby drawing upon your specific experiences.

What is a focus group?

The focus group will be an informal group conversation, focused on particular issues relating to rugby participation, personal experiences and perspectives. There will be eleven different focus groups in total; you will only participate in one. Groups will consist of between 5-8 stakeholders, take ~2 hours in total and moderated by Patrick and/or Phil. These conversations will be recorded and transcribed. The subsequent analysis will determine the key themes underpinning the discussion.

What are the benefits?

The focus groups themselves should provide you with valuable stimulus for personal reflection and new understanding. On a larger scale, the results will help policy

makers set out a series of actionable recommendations to enhance the entire rugby experience in Connacht going forward.

What are the risks?

You might decide that you don't want to answer a question. If this happens, you do not have to answer any question you do not wish to.

What if I do not want to take part?

Participation is purely voluntary, and you can choose not to take part or to stop your involvement in this study at any time or for any reason.

What happens to the information?

The information that is collected will be kept private and stored securely and safely on the student researcher's University of Limerick computer and associated secured One drive account. The computers and One drive storage are fully encrypted and protected by password. Your identity will remain anonymous outside of the focus group. Your name will not appear on any information. The raw data that is gathered in the study will comply with strict GDPR guidelines relating to storage and deletion.

What if something goes wrong?

In the unlikely event that something goes wrong during the focus group, the session will immediately stop until the researcher and participants are ready to restart the session or the session would be stopped completely.

What if I have more questions or do not understand something?

If you have any questions about the study, you may contact either of the researchers. It is important that you feel that all your questions have been answered.

What happens if I change my mind during the study?

At any stage should you feel that you want to stop taking part in the study, you are free to stop and take no further part. There are no consequences for changing your mind about being in the study.

Principal Investigator

Phil Kearney, Department of Physical Education and Sport Sciences, University of Limerick, Tel (061) 202844; Email: philip.kearney@ul.ie

Other investigator

Patrick McEvoy
Postgraduate Research Student
Department of Physical Education and Sport Sciences, University of Limerick
Email: Patrick.McEvoy@ul.ie

Yours sincerely,

Phil Kearney

Faculty Member

Patrick McEvoy

Student Researcher

Pilot Focus Groups- Thematic analysis and synthesis:

Common Themes- (Graphic of themes illustrated in table 1)

Coaching Factors

- All groups allude to the positive influence the coach can have over a player's intention to continue, where the needs of the player and the person are supported: *"Like if you create a good environment within your team, like be it training and your game and all that, can like, kids buy into that"*.
- This includes understanding the individual needs of a player and in particular gender difference awareness; *"Look at gender and look at gender differences, a lot of girls would actually be playing sport for the social element. I'd actually have to give them 10 maybe 5 or 10 minutes at the start of the session, just to engage with each other."*
- All coach and parental groups pointed to improving player experience through better coach/ coach communication. (inter-club and inter-organizational). *"I think as players move through the grades communication between the coaches is essential."; "I feel there should be more communication between the coaches in minis and youths."*

Social Factors

- All group acknowledge the importance of positive peer interaction and group engagement to foster a sense of belonging and identity. Coaches and parents recognise this: *"A lot of them just want to be part of something as well, you know, the collective part of the identity. The identity aspect of it seems to be very important."*
- The players themselves feel peer interaction is a key motivator of participation: *"I dunno, it just feels good to be training and able to play with your friends like."*

Physical Factors

- All groups acknowledge the physicality associated with rugby. While players believe some may drop out due to injury, the physicality involved in playing rugby is unique and a main factor in enjoyment of the sport. *"..but it's also the challenge as well. I love the physicality of it."*
- Parents understand that but also appreciate why some may see only the danger. *"Sometimes when you come out and see how physical it is getting. But again I suppose that's you putting your views and thoughts on to your child as well? You kind of have to balance your own emotions."*

Developmental factors

- Coaches and parents emphasise the need to develop the person not just the player to help with continued participation: *"I see my role is helping them. grow as people through sport and that would be setting good habits as well. I would incorporate certain good habits. Parents see the benefits of this through sports participation: "if they have training on their way more focused, getting their homework done, things like that, so they develop lot of other skills through their sport."*
- Gaps in the player pathway particularly the transition to adult can trigger dropout: *"once they finish school, they're lost again, the club has not got enough teams to actually take to take them, and they're not willing to facilitate or to do it, to start a new team to facilitate those players. So there's no opportunity, barring the super players, they're gone"*. This seems more apparent in female rugby: *"I think the majority of girls no longer play rugby because their club doesn't have the numbers and there was no connection like at 18. You really don't wanna be going up against 28, 29-year-olds, you know. And that's a big, big leap and heading straight into senior"*.

Opportunity To Participate

- All groups agree that not just appearances, but meaningful game time is a major influence on both retention and dropout. *“That’s a direct result as a parent going to my daughter’s matches, where she was left on the bench, do you know what I mean and whatever and brought on for two minutes at the end do you know what I mean or something like that? Meaningless sort of contribution.”*
- Playing more games is an important aspect *“And I really liked how the coaches, like there wasn’t that many girls on the team so you always got played”.*

Psychological Factors

- Enjoyment of participation and feelings of personal value were acknowledged as contributors to continued participation among young players: *“The retention part is that for us when we are working with coaches that they’re making it a really enjoyable experience that will keep kids and young adults involved”.*
- Enjoyment can come from different aspects such as competition: *“They definitely enjoy winning and they enjoy the competitive side of things as well. So it’s about getting the balance”,* and also free play: *“It’s one ball, some morning it could be a football, some morning it could be a rugby ball, and the enjoyment is off the scales. There are no rules, they kick the shit out of each other every morning and massive smiles on their faces going into class at 9:00 o’clock.”*
- Personal value is a strong motivator to continue in sport, coaches can reinforce these feelings: *“it is very important and that can be something simple for us on the corridors like saying to some guy you know, “are you training today?” in front of his mates and suddenly it’s really, you know he, he feels great because somebody is taking time out of their day to actually ask him and make him feel important.”*

Competing Demands

- The main push factors associated with continued participation in rugby are other commitments from pressure to study: *“Some of the girls would be, you know, it was tough with school, parents pulling them away from this and saying that it was just too much to be doing on top of leaving CERT work and having a boyfriend too or something and they just give up the sport. They give up rugby instead rather than and keep playing it.”*
- Work commitments: *“Definitely part time jobs so if there if they need to have a part time job at the weekends, that’s definitely, that’s another drop off area.”; “And yeah, part time jobs is a problem.”*
- Social commitments: *“between girlfriends and drink and stuff like that, so their focus can be taken elsewhere is probably one of the issues with the general.*
- Playing other sports: *“I think more so (pressure to choose) from the other sports side. They think that rugby is competing with them.”*

Ease of Access



- While access to games and training is limited by travel methods (car, bus etc.), clubs can also limit the access for some club teams: *“when it comes to training like girls always gets the worst pitch or they have to train on the Hill because the lads always come first, even if it’s under-16 lads, the women’s senior team, like, have to play on the hill or on the worse pitch.*
- It is noteworthy that parents highlight a possible Connacht specific factor. Travel time and cost as a real barrier given the geographical landscape of the region: *“Because as **** would know, probably one of the worst places for us to get to is to Ballinasloe. Its one of the furthest away geographically that we have to travel to, and it’s really across country; We cover and awful big area, particularly to the West of us. We go right out as far as Belmullet, it’s an hour drive away and it’s, it’s, you know what I mean, its remote; The distance, the distance of having to come into training and matches and all of that was definitely a push factor for us.”*

Table 1: Prevalent themes across focus groups

Theme	Parents	CDO's	Coaches	19-year-old Players (female)	16-year-old players (male)	Concurrent Themes	
Coaching Factors	Positive coach created climate	Positive coach created climate	Positive coach created climate	Positive coach created climate	Coach / teacher	Positive coach created climate	
	Communication	Communication	Communication	Coaching expertise			Communication
	Understanding	Coaching expertise	Understanding				
Social Factors	Group interaction	Group interaction	Group interaction	Group interaction	Group interaction	Group interaction	
	Social interaction	Peer involvement					
Physical Factors	Parent/ child travel time						
	Perception as dangerous	Perception as dangerous/ Concussion		Nature of Physicality	Nature of Physicality	Perception as dangerous	
Developmental Factors	Youth development		Youth development	Player pathway	Personal development	Youth development	
	Player development		Player development				
Opportunity to participate	Meaningful game time		Meaningful game time	Meaningful game time	Meaningful game time	Meaningful game time	
	Inclusion strategies						
Psychological Factors	Enjoyment	Enjoyment	Sense of identity	Relatedness	Excitement of competition	Enjoyment	
	Personal value			Personal value	Self-motivation	Personal value	
	Relatedness (females)						
Competing demands	Work/study commitments	Other sports Social commitments	Other sports Study commitments	Work/study commitments	Other sports Work/ study commitments	Work/ study commitments	
	Time/ travel					Travel	
Ease of access	Expense		Cost of facilities	Limited access to funding/ facilities	Parental support to travel	Access to facilities	



Appendix 8

Online focus group brief for participants






Aims of the Focus Group:

- To have an open, honest and friendly conversation about your feelings towards your participation in rugby.
- To gain insight into the various reasons affecting continued participation in rugby from your perspective.
- To describe and discuss your personal experiences in rugby to help paint a bigger picture of the rugby landscape.



Introductions:

- The mediators will introduce themselves to the group and recap on volunteer consent before recording starts. When recording starts you will see this icon appear: **REC** 
- You will be asked to introduce yourself to the group; your name, your current role/ occupation, perhaps where you are from and some background on your life in rugby. (Or none of these things if you don't feel comfortable, no problem!)
- This is nothing more than an icebreaker and serves as an opportunity to describe your situation and background.
- This will help put your experiences into context for the group.

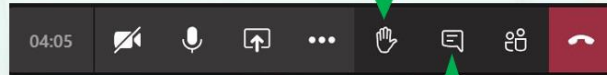


Key questions and themes:

- The discussion will be based around the key research theme of barriers and facilitators to continued participation in rugby.
- Questions will be based on your personal experiences and perceptions of rugby participation only.
- Be at ease, **there are no wrong answers** only welcome perspectives!
- These questions are only to help stimulate conversation. A flow of discussion is encouraged between all attendees.
- An example question may be “What makes rugby enjoyable to you?”. This may stimulate different answers and these can be discussed together.

Microsoft teams tips:

- During an on-line focus group, you may want to add to another persons view but do not want to interrupt. No problem! Use the hand icon on the task bar on the screen and this will allow the mediator to come to you subsequently.



- You may only have a comment to make on another's view. This can be done by clicking on the "comment" icon. Your comment will appear on the left side of the screen for all attendees. An example may be that you strongly agree with another's view. You can type "I strongly agree with John's view here."

This focus group should be a **positive and enlightening experience** for all involved.

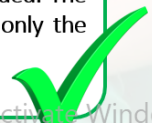
It is important that you feel at ease and are able to be **open and honest about your experiences**. All experiences and perspectives are equally important.

This will help others to understand the different perspectives towards the rugby environment and help develop a better landscape for young people to continue.



Your peace of mind is important. Remember that all you say is strictly confidential. Your name or your image will never appear on any document after the focus group has concluded. The recording will be stored on an encrypted computer by the organization (UL) and only the project researchers will have access.

Contact me anytime with any queries: Patrick.McEvoy@ul.ie



Appendix 9

Focus Group Structure

- Letter to organization “gatekeeper” with attached volunteer (participant/ parent) info sheet.
- Once participants have been identified, consent, research data consent and research privacy notice will be sent to participants.
- Return of consent forms.
- 4-5 participants max for each group.
- Advance email/ power-point/ PDF to bring each participant up to speed on the “purpose of the focus group”, overall structure of the session, outline of the broader research and detail some navigation tips for Teams (comment box, hand up button etc.).
- Open meeting two hours in advance of the actual start time to allow participants to test log in if necessary (this can be explained in the mail).
- Mediator or field note taker will use a table of names and questions to check all participants have addressed all questions see (figure 1), perhaps a comment box for any relevant detail?

	Participant 1	Participant 2	Participant 3	Participant 4
Q1				
Q2				
Q3				
Q4				

Figure 1: Example table for field note taker to help ensure all participants address topics

Focus Group Script Structure

- Introductions. Mediator will open with a return to consent from all participants and begin recording. The mediator will begin proceedings with an introduction of themselves and open the floor to participants to introduce themselves.
- Important the mediator uses positive language and assuredness throughout the focus group.

- “Ice-breaker”. The mediator may start with an anecdotal situation they found themselves in and ask if participants found themselves in a similar situation? It could also be straight forward question with a qualification, e.g: “Who has been the most influential person on your participation in sport (as a player or coach etc.)? Why?” These “ice-breaker” strategies and approaches will need to be tailored to each focus group to help ensure appropriateness to the participant population.
- Specific questions will be put forward to the group with regard to uncovering perceptions and realities related to the main research question.
- Questions to be open ended, using prompts from the lit review to guide discussion. Important to “embrace” any silence as this allows people to think.
- Prompts may be key in uncovering more detail as opposed to questions and may lead to more participant focused discussion rather than straight forward answers.
- Participants may be encouraged to pick up on specific points or topics touched upon by another.
- If discussion diverges from themes and topics most relevant to the research question, the mediator may steer the conversation back.
- Important to include a recap at the end and afford the participants the opportunity to add anything they feel was not covered that is important to get across.

Appendix 10

Outline script for coaches' perspective Focus Group

1. Introduction to the session, brief recap of what will happen, confirmation of consent and allow for any last-minute questions before the session begins in earnest. Also important to remind participants to respect the privacy of their fellow participants and not repeat what is said in the focus group to others.

2. Personal introductions and a brief background for context (initiated by the mediator). Who you are, your age, when you started playing rugby and your current rugby status (school, club, college etc.), any relevant information the individual would like to share. Mediator can remind participants that the aim is to share experiences and opinions, questions are merely starting points for open discussion and as such there are no wrong answers!

3. "Icebreaker" question to start proceedings (snapshot):
"What is your most memorable experience in rugby?"
Prompt: ***"What made it special/ memorable?"***
(Important to take notes here as these experiences may be helpful to revisit during the course of the focus group).

4. Some questions on perception of their role as a coach.
"What do you feel is the most important aspect of your role as a coach?"
Prompts: ***"Why?"***; ***"How much of a challenge is it?"***, ***"How would you improve it?"***

5. Main questions on research focus:
 - Motivations:
"As a coach what are the things you feel young people like about playing rugby?"
Prompts: ***"Why is that?"***;" ***What do you mean by that/could you give an example?"***

 - Pull factors:
"What do you think makes it easier for young people to play rugby?"

Prompts: *“Why is that?”; “What do you mean by that/could you give an example?”*

- Push factors:

What do you think makes it more difficult for young people to play rugby?

Prompts: *“Do you feel it is demanding to fully participate in rugby?”; “Why is that? What do you mean by that/could you give an example?”*

Questions below are solely if these topics are touched upon naturally in conversation

- Impact of coaching:

“What does the coaching pathway in Connacht look like? What opportunities are there to develop expertise (training etc) in communication and player support?”

Prompts: *“Why do you think that is?”*

- *“If you could change or alter one thing to enhance the rugby environment in Connacht what would it be?”*

6. Summary of what has been covered and opportunity for any additional points/comments they feel are relevant and any questions they may have. (This was updated to a summary of each section before moving on to the next section rather than an overall summary).

Table for field note taker to help ensure all participants address

	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7	Participant 8
Q1								
Q2								
Q3								
Q4								
Q5								
Q6								
Q7								
Q8								
Q9								
Q10								

Focus Group Task Checklist (chronological)	
Formal Introduction	Recap of what will happen in the FG
	Confirmation of consent PRESS RECORD!!
	Reminder to respect others privacy
	Any Questions?
Informal Introduction	Mediator introduction
	Participant introductions
	Recap of what will happen in the FG
	Reminder of the informal and respectful nature of the discussion
Icebreaker	Relevant icebreaker
	Ensure all address
	Take field notes on icebreaker
Main research questions	Transition
	Motivations
	Push factors
	Pull factors
Conclusion/ Summary	Summarize main discussion points
	Provide opportunity for additional comments
	Brief feedback on the experience

Reflective diary on script revision with supervisor 01/10/20

Just had a chat with Phil there regarding focus group script.

Balance in question scripting is a better approach as it avoids constraining the discussion to a specific factor. Openness around the topic should lead to a directed flow of discourse naturally, rather than pointed.

Response questions based on what is touched upon here may yield a better insight, this in turn may be unpacked further with the appropriate prompts.

I like this. Its like surfing. Decision making is always semi-open. I can only surf well by performing the most appropriate manoeuvre the breaking wave will allow, forcing a pre-planned turn (which may look cool) will most likely lead to the best of the wave going un-surfed, while I flounder in the white-water.

When I paddle in, I know the direction the wave will break, I know the shape the wave will take, but in order to take complete advantage of the wave in its entirety, the immediate section surfed must be in a manner to maximize its potential which includes where I need to be in the next breaking section to make the most of that section.

I am the surfer, my questions are the board, the group is the wave, the prompts and probes are the manoeuvres that will lead to a successful ride from start to finish. The subtle and not so subtle changes in the way the wave breaks will help me decide what manoeuvre will get me to where I need to be while making the most of where I am.

Still need to have a sequence that is true of every wave; paddle, drop-in, ride (the main reason we surf), pull out or wipe out.

Formal intro, informal intro, ice breaker, lead in questions, perhaps their view of someone else's experience (a friend?) to allow them to talk about experiences while insulating somewhat from exposing too much of themselves early on. Then incorporating research question focused discussion if it is not taking hold as a natural consequence of the directed prompts. Important to summarise the session and allow any additional comments.

Perhaps allow specifics to filter in naturally into the conversation, don't direct to one specific factor. If something like coaching is touched upon and not picked up by the next speaker it could be unpacked with a prompt, *"You mentioned coaching. Just how much*

of a factor is that do you think? Can you give an example of what you talked about there?''.

Will incorporate a matrix style table to monitor the decision-making process with regard to what questions to ask and when, then provide a rationale.

Question	Why ask this?	Why ask it now?

Appendix 12

Reflective notes from my first online focus group (CCRO FG 08/10/20)

Two late pull-outs and one non-responder.

Preparation for this one was not good on my part. Was focused on another group (18). Why? Not set up.

Didn't clarify with Luke regarding list and this was a bit last minute then.

The session

Technically it went well from an IT point of view, smooth entry, good connection no hiccups.

May point out in email for participants to log in early and leave the video and mic on mute until I start to ensure people are not knocking around before I am ready to begin.

Intro was a bit dis-jointed, and I didn't introduce myself properly, went straight into the research.

May be good to go through the power-point attachment at the beginning.?

My note taking was non-existent. (it was an issue when recapping, so must find a way. Need a field-note taker).

Memorable moment went well I felt as all coaches referred to connectedness. Helps understand what type of coach they are.

Also, the Q "most important part of your job" went well and gathered some decent data.

Some of my input was a bit stale, I think. May need to cut down on waffle.

Discourse was good between participants with agreement and disagreement and examples.

As I ran out of questions due to poor prep, I let participants talk about specific (biased?) topics and did not get the bus back on the road appropriately.

My probes need to be refined but was not eager to disturb speakers who follow on.

My recap summation was an epic fail. Looked like a rabbit in headlights.

Things to address

Initial contact and introduction needs to be streamlined (power-point?)

My waffle needs to be curbed to shorter soundbites.

My preparation needs to be better regarding session planning. I should have more questions than I need.

This means more questions and prompts regarding the broader research question.

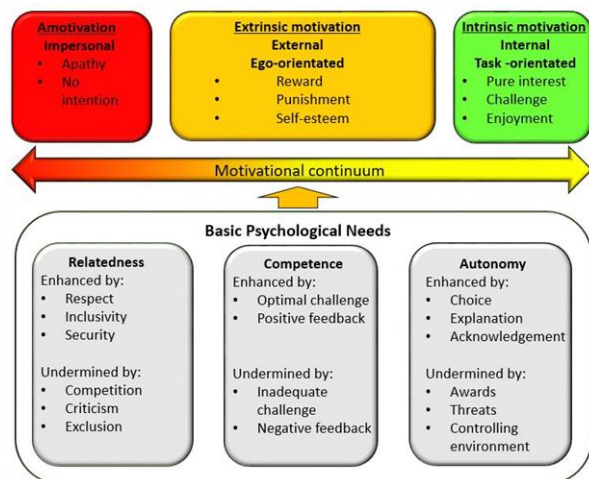
“Disguised learning”, was a term used. I want disguised perspectives, need to develop indirect questions to elicit an accidental or perhaps unintentionally honest answer. Is this appropriate? Look into.

I did not know exactly what I wanted from the discussion, and this may show in the analysis. I was easy on myself here to begin with. Drawing up the script I became open to making mistakes as part of the learning curve, but this needs to be addressed going forward.



Feedback and discussions:

The use of self-determination theory (SDT) to reinforce a player’s basic psychological needs is a valuable message that could be incorporated into the coaching development pathway. While the main body of research in the report was dense and at times hard to digest, the graphic diagram of the role of SDT proved a good dissemination of the key role it plays in player engagement.



The delivery of this message was discussed. The [KYI card game](#) has been successfully used to promote practical implementation of basic psychological needs development through integrated workshops with players and coaches. The possibility of distillation and further dissemination of this message through power-point presentation is also a further possibility. The importance part is the real-world translation through coaching practices (integrating a SDT framework into current coaching pathway or as a stand-alone educational workshop on awareness and practice).

This may also be a good starting point for beginning to implement a divergent approach for those who coach females. Current practice is to structure and coach the women’s’ game in an identical manner to the men’s game. Not only does the literature suggest that female motivations are different to males with aspects of the coaching and team environment (relatedness support, security, sense of belonging and acceptance), anecdotally coaches have seen first-hand how different they are through real life interactions. Potentially there is a lot of knowledge on motivational differences already on the ground but may be largely untapped. If a workshop was designed to approach awareness and integration of an SDT framework, it could also double as level 1 workshop for separate pathway for coaches of female players? There is a wealth of expertise in this area on the UL project team, namely Ian Sherwin, and a real opportunity to sow the seeds of success.

The Ethos of “It’s not all about winning”, was discussed as a major point of conflict and changing policy to attenuate the “win at all costs mentality” is difficult. The reality is that is not a “one size fits all” approach and any change would be small steps over time. While coaching education is one area to target, other avenues were discussed. Meaningful game-time is something that could be promoted through alternative

competition policy but would in reality be more effective if promoted through coaching education. This could be something to bring up in the focus groups.

The suggestion to measure how successful a club is by other measures is definitely applicable given the data available in the database. Year to year retention club rates could be promoted as an important competition in its own right and setting goals of >90% of players from U-13 to U19 to have at least 3 appearances for the year with awards given (perhaps bronze, silver and gold status, most improved etc.) and also re-numeration in the form of prize money or facility donations? The issue here is compliance when uploading information to the database by clubs, which is average at this moment in time. The competition itself could be a good carrot for increased compliance among the clubs for accurate and on time data uploading, in effect killing two birds with one stone. Worth further discussion and expanding the idea into how implementation might look and building on from there.

Given the restriction as a result of COVID19 the physical co-op aspect of the project has been affected. Patrick cannot travel and work in the Connacht offices nor visit interested clubs. More regular meetings were discussed with different members of Connacht staff to not only to gain insight to possible issues to raise in focus groups but just to put a face to the “research guy” that’s sticking his nose in! Also mentioned was Patrick sitting in on committee meetings as an observation exercise to get a feel for the politics and ongoing issues in the region. Both of these suggestions are very worthwhile and would help the project to grow wings.

Summary:

Coaching Expertise

Integrating a coaching framework supporting autonomy, competence and relatedness into the training environment is possible through educational workshops. These workshops could be delivered through presentation, open discussion through the [KYI card game](#) and on-field problem based tasks, delivering tactical coaching drills with player feedback using the [Empowering and Disempowering Motivational Climate Questionnaire-Coach](#) or peer feedback using the peer feedback checklist as illustrated in the literature review on player retention; [\(Table C\(ii\) pg. 13\)](#) (Possibly more than one workshop, could be at different levels?)



Re-thinking the structure of women’s rugby and the delivery of coach development pathways for those who coach in women’s rugby should enhance player retention. Diverging current practices to attend to the gender specific motivations particular to females; relatedness support, security, sense of belonging and acceptance could potentially have a huge impact on enhancing player retention and the women’s rugby environment. While policy on competition structure needs to be informed before changes can be made, best practice for female coaching can attended to. Possibly using the above-mentioned workshop as ‘level 1’ of a divergent pathway for developing female coaching expertise. Useful resources on possible directions here: [Tucker Center for Research on Girls & Women in Sport](#)

Balancing Developmental opportunity

Discussions surrounding “meaningful” game-time need to be explored further. Changing attitudes toward “it’s not all about winning”, cannot be completely policy driven (half-game rule), but as an ethos must be established through understanding by the stakeholders at grassroots level. “Meaningful” game-time is

something that could be promoted through alternative competition policy but would in reality be more effective if promoted through coaching education. Finding a balance between developmental opportunity and the reality of competitive engagement is age-appropriate and should be reflected in over-arching policy.

Alternative Metrics of Success

Alternative metrics to measure club success could prove an excellent way of encouraging clubs to look at retention as a potential win. Year to year retention club rates could be promoted as an important competition in its own right and setting goals of >90% of players from U-13 to U19 to have at least 3 appearances for the year with awards given. A regional competition could be a good carrot for increased compliance among the clubs for accurate and on time data uploading, which is a limiting factor to the success of any club to show full and accurate game appearance and retention metrics.

Takeaways and Positive Actions

Informal connectedness has been diminished by COVID19 restrictions, undermining the forming of helpful relationships between researcher and CR staff in day-to-day staff interaction. More regular and informal meetings with different members of Connacht staff by the researcher to gain insight and help put a face to the name could be beneficial.

The issues and ideas raised at the meeting have already helped shape some broader questions for future focus groups; *What does the coaching/ player pathway look like; Attitudes toward a female player coaching pathway; Meaningful game-time and alternative aspects to traditional competition structure.* This highlights the importance of more frequent and informal discussions to stimulate ideas.

Perhaps the researcher silently sitting in on committee meetings as an observation exercise to get a feel for the politics and ongoing issues in the region could develop a better understanding how to help with implementation of recommendations.

