Exploring British adolescent rugby league players' experiences of professional academies and dropout.

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Abstract

The purposes of this study were threefold: to explore former rugby league players' experiences of professional academy environments, to understand their reasons for dropping out of the sport, and to explore their recommendations for optimising future talent development environments. Semi-structured interviews were conducted with nine ex-professional academy rugby league players up to one year after dropping out of playing rugby. A combination of inductive and deductive thematic analysis was employed to analyse the data. The thematic analysis revealed three general dimensions: talent development pathways, reasons for dropout, and recommendations. The findings suggest that players' talent development experiences, and the reasons for dropout could be explained by a complex interaction of micro (e.g., negative academy experiences), meso (e.g., education), exo (e.g., player pathway structures), and macro systems (e.g., transitions to other clubs). It is concluded from these findings that talent development pathways which lack a long-term focus, and emphasise early success are likely to result in increased risk of burnout, de-motivation, and subsequent dropout. From an applied perspective, talent development pathways must consider the many personal and environmental factors which interact to determine an individual's talent development trajectory. Furthermore, by recognising the multiple factors that may influence development, the effectiveness of development pathways may be enhanced by neither excluding 'potential' through inappropriate early identification, nor ignoring crucial talent development variables that contribute toward the fulfilment of potential.

Keywords: bioecological; dropout; expertise, talent development; youth sport

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Over many decades sport expertise research has aimed to answer questions about how excellence is achieved, by focusing on how successful athletes reached the top and what attributes they acquired along the way (Baker & Young, 2014). Although research has been dedicated to understand expertise acquisition, research into *why* high-performing adolescent athletes do not achieve elite status by transitioning into full-time professional contracts and subsequently dropping out of playing sport is relatively sparse (see Brown & Potrac, 2009; Fraser-Thomas, Côté, & Deakin, 2008a; Quested et al., 2013). This is an important issue to understand since in the UK alone, rugby league currently has one of the highest rates for dropout (Sport England, 2012). Alfermann and Stambulova (2007) propose that dropping out from sport is the premature termination of a sports career prior to the individual reaching their peak performance. Talented adolescents who have demonstrated traits of elite performance in the teenage years, who stop playing their sport having not fulfilled their potential, are often exposed to immediate psychological, motivational, health and well-being issues associated with sport failure (Brown & Potrac, 2009; Crane & Temple, 2015).

Exploring the talent development pathways which many of these athletes partake in during their progression to achieve peak performance could reveal the reasons behind their dropout and provide potential strategies to avoid such dropout. One contextual example of this in rugby league could be basing selection and training environments on the early physical maturation of players, which may exclude equally skilled late developers from the same developmental opportunities (Cupples, O' Connor, & Cobley, 2018; Till, Cobley, O' Hara, Cooke, & Chapman, 2014). A holistic approach has subsequently been conceded as a critical element in successful talent development programmes (e.g., Henriksen, Stambulova, & Roessler, 2010; Martindale, Collins, & Daubney, 2005). In a review by Martindale and

colleagues (Martindale et al., 2005), they presented four critical themes relating to effective talent development environments. First, programmes are required to have long-term aims and methods, second, wide ranging coherent support and messages, third, emphasis on appropriate development rather than early selection, and fourth individualised and ongoing development (Martindale et al., 2005). Development environments which are lacking these features have been shown to increase the risk for burnout, de-motivation and dropout (Durand-Bush & Salmela, 2002; Fraser-Thomas, Cote, & Deakin, 2008b; Isoard-Gautheur, Guillet-Descas, & Lemyre, 2012; Rumbold, Fletcher, & Daniels, 2018). For example, recent research in rugby union academies has identified a range of pressures that academy players can encounter (e.g., conflicting coaching styles, lack of individualised development sessions, a negative motivational climate) whilst operating in such talent development environments (Rumbold et al., 2018). In addition, these pressures have been shown to link to a series of predominantly negative emotional, intrapersonal and performance development outcomes.

To achieve a holistic talent development approach, it has been suggested that a sound theoretical framework is important in foreseeing and designing the most appropriate ways to develop future athletes. Many talent development models have specified clear stages (e.g., Bloom, 1985) which individuals progress through (for a review, see Coutinho, Mesquita, & Fonseca, 2016). However, talent development is idiosyncratic, non-linear and dynamic (Coutinho et al., 2016). Hence, models which examine discriminative and specific stages of development should be taken with caution, as it has been argued that there is no specific precipitating event that may lead to a person's withdrawal from sport. Rather, an ecological theory, such as Bronfenbrenner's bioecological framework (e.g., Bronfenbrenner & Morris, 2006), could be used as a starting point to organise the study of multi-level dynamics of the different sub-systems involved in the acquisition of talent development.

Bronfenbrenner's bioecological model provides an evolving theoretical framework for

understanding how the environment may shape human development throughout the lifespan (see Bronfenbrenner, 2005). Bronfenbrenner (1995) suggests that complex interactions emerge between a person and their environment. These interactions occur through a series of dynamic interrelating nested systems which result in distinct developmental outcomes (Krebs, 2009). The bioecological model is predicated on the interaction of four key elements: Process–Person–Context–Time (PPCT) which constrain human development (for a review, see Bronfenbrenner & Morris, 2006). Bronfenbrenner (2005) indicated the central component of the model as *proximal processes*. These processes refer to systematic interactions between the individual and immediate environment and are activities that the individual regularly participates in, such as attending practice. Araujo et al.'s (2010) study exemplifies how being informed by the PPCT model may benefit researchers to further explore the development of athletes, identifying factors that influence development, such as: training quality and an unstructured practice environment (micro systems), family support (meso systems), location of birth (exo systems), and poverty (macro systems) .

When evaluating the linkage between talent development environments and the possible reasons for dropout in sport, it is worth noting that the literature on adolescent dropout research has focused on individual factors such as personal motivation and coping abilities. However, evidence suggests that broader social forces (e.g., attitudes and beliefs towards developing talent) may also influence dropout (Balish, McLaren, Rainham, & Blanchard, 2014). In this regard, when researching dropout previous research has largely focused on quantitative means of data collection with currently performing competitors, which fails to offer meaningful insight into the complex reasons for attrition amongst elite adolescents (Le Bars, Gernigon, & Ninot, 2009). Given this focus on superficial reasons for dropout, many researchers (e.g., Fraser-Thomas et al., 2008b) have emphasised the importance of conducting qualitative research as a valuable means for in-depth analysis and

for interpreting how physical and psychosocial factors interact to influence athlete development (Coutinho et al., 2016). Further, although previous research investigating dropout in sport has considered the varied perspectives of athlete withdrawers versus engagers (Le Bars et al., 2009), coaches (Jones, Mahoney, & Gucciardi, 2014; Pankhurst, Collins, & Macnamara, 2013), parents and National Governing Body staff (Pankhurst et al., 2013), we subscribe to the belief that it is more suitable to represent the viewpoints of those individuals who have proximally lived through the experience of these talent development environments and dropout.

One way to start understanding the processes behind dropout is to utilise a framework such as that proposed by Uehara, Button, Falcous, and Davids (2016). These researchers employed an interpretive research design that allowed the exploration of wider interacting environmental constraints that impinge upon the acquisition of expertise. Uehara et al. (2016) outlined how the bioecological model can be used to provide methodological guidance for identifying relevant constraints that affect the development of athletes; offering a holistic, longitudinal and contextual overview of human development. One specific UK context in which we have limited understanding of dropout is that of rugby league academies (Jones et al., 2014). Rugby league academies in the UK operate at under 19s where players are contracted full-time to a professional or semi-professional rugby league club, in addition, a part time under 15s and 16s scholarship programme provides a pathway to the academy. In sports such as rugby league, peak performance emerges during adulthood (Till et al., 2016); hence, career termination during adolescence is regarded as premature and conforms to dropout. Moreover, a large proportion of talented adolescents who reach the top of the sport during the teenage years fail to transition into the higher echelons of the professional game (Rugby Football League, 2016). However, limited research has explored the reasons for dropout in this hard to access population during late adolescence or early adulthood (Baron-

Thiene & Alfermann, 2015). Subsequently, this population are a largely underrepresented voice in explaining why dropout in rugby league may occur so frequently. Hence, this study's focus was on dropout in ex-professional academy rugby league players who were previously highly invested in their sport, rather than withdrawal by sport samplers or transfers. Understanding more about ex-players' experiences of academy environments might shed light on the long-term implications of involvement in high-performance sport, whilst providing useful information to guide the designs of athlete development programmes. Therefore, the aim of this research was to explore firstly, experiences of being part of a professional rugby league academy, secondly, the reasons why talented adolescents have dropped out of playing rugby league and thirdly, recommendations for future talent development in rugby league based on players' previous experiences.

Method

Research Design

In line with research that seeks to represent individuals' values and diverse viewpoints regarding social realities (Lincoln, Lynham & Guba, 2013), a qualitative design was adopted. This design was considered to be most appropriate for serving three main philosophical aims. Firstly, the current authors were interesting in exploring and outlining a social inequity (cf. Mertens, Fraser, & Heimlich, 2008), namely, the disproportionate number of UK professional rugby league players who have prematurely dropped out of the sport (Rugby Football League, 2016). Secondly, through the collection of detailed descriptions, the authors wanted to co-construct a greater sense of social justice by engaging participant voices that have habitually been excluded from talent development and career transition research in sport (Fraser-Thomas et al., 2008b). Thirdly, in embracing action as both a political and ethical research commitment (Heron & Reason, 1997), the authors sought to co-construct a series of recommendations for optimising talent development environments; founded on the belief that

people's worldwide views are based on participative realities, and, that individuals' knowledge is cognitively constructed from their experience and interaction with others, and, the environment in which they operate (Lincoln et al., 2013). To achieve this purpose, the study was conducted from a relativist ontological perspective and transformative paradigm (Mertens et al., 2008).

Participants

Purposive sampling was employed to recruit individuals who had previously competed for one of the UK Super League rugby league academies, and had since dropped out of playing the sport. Following institutional ethics approval, ex-academy rugby league players were contacted, informed of the study purpose and invited to take part. The participant sample which agreed to participate (N = 9) consisted of male ex-professional academy rugby league players (Mage = 20.22, SD = 1.48 years). During their teenage development years, all players trained within youth scholarship programmes before being contracted to professional rugby league academy teams on a full-time basis for up to 4 years. When operating within their respective professional academy team, six players were not offered a senior contract, two players turned down the offer of a senior contract, and, one player dropped out of the sport mid-way through their academy contract. The competitive standard and future playing potential of these players was evident in so far that seven of the nine players had competed internationally at youth age-group level. Post academy seven of the players immediately dropped out of playing rugby league and at the time of interview had not played since, one player continued playing for a semi-professional club and at the time of interview had not played for one full season, and one player continued playing at university but had not played the sport for two full seasons at the time of interview.

Data Collection

Individual interviews with each participant were conducted face-to-face by the first

author who had experience of qualitative interviewing and of playing and coaching rugby league previously. Prior to beginning each interview, participants were provided with a written information sheet about the aims of the research. This information was verbally discussed at the beginning of each interview, at the same time of assuring participant confidentiality, anonymity, and the freedom to withdraw at any stage. Following this, participants had the opportunity to ask questions about the research before completing an informed consent form.

Interview guide. A semi-structured interview guide was used to facilitate each session. The content of the interview guide was generated based on the authors' inductive logic of rugby league coaching and professional rugby academy environments. In addition, the development of questions was supplemented from related studies that have been conducted on dropout in sport (Fraser-Thomas et al., 2008a, 2008b; Quested et al., 2013). In this way, five sections of the interview guide were developed to explore the relevant research aims, including: (1) initiation into rugby league (e.g., "Can you tell me a little bit about your early experiences of rugby league?" / "How did you first get introduced to the sport?"), (2) experiences of professional rugby league academies (e.g., "Can you tell me about your first involvement with a scholarship or academy?" / "To what extent was the environment an appropriate climate for you to develop within?"), (3) leadership and support structures whilst operating in professional rugby league academies (e.g., "Can you tell me a little bit about the coaching and leadership styles within the academy at the time?" / "To what extent do you think the academy staff worked well to help you develop as a player?"), (4) experiences of dropout from the sport ("How did you adjust to no longer being a professional player?" / "What were your main reasons for dropping out of the sport?"), and, (5) recommendations for youth rugby league players and professional rugby league structures ("What advice would you give to other players operating in academy set ups?" / "On a national level, is there any

advice that you would give in terms of creating optimal development environments for academy rugby league players?"). A final section of the interview guide served as an opportunity for participants to summarise their viewpoints, elaborate on their socially constructed experiences and provide feedback on the interview process.

Data Analysis

The interviews took approximately 24 to 76 minutes (M = 44.39, SD = 17.15), were digitally recorded and transcribed verbatim. To explore ex-academy rugby league players' experiences of dropout, a thematic analysis was conducted due to its suitability in extracting rich descriptive accounts and for identifying common patterns across participant cases (Braun & Clarke, 2006). In line with Braun and Clarke's (2006) framework for thematic analysis procedures, this involved reading and re-reading the interview transcripts and making a note of initial relevant material. Initial codes representing words or phrases relating to the research question were then inductively identified to represent raw data themes. These raw data codes were then collated into lower-order themes before being categorised into higher-order themes. Higher-order themes were then deductively clustered into general dimensions. Following this, ongoing analysis was conducted by the research team to review and refine the naming of themes through inductive and deductive reasoning until a general consensus was achieved.

Research Quality and Rigor

Research rigor was developed based on a relativist approach that views universal criteria as a socially constructed list of characteristics (Smith & McGannon, 2017, p. 16; Sparkes & Smith, 2009). Accordingly, the following steps were adopted to demonstrate the quality of the methods and emerging data. Firstly, purposive sampling was adopted to ensure that the most appropriate participants were recruited to fully address the research question. Rigor of the methods was facilitated by conducting two pilot interviews with two ex-rugby

league academy players to evaluate the flexible format and sequencing of questions of the interview. Subsequently, some questions were removed due to repetition and other questions reworded to enhance their clarity. The authors have attempted to illustrate sincerity by being transparent about their biases and motivations, challenging whether they are well-suited to explore the topic of interest, and, how these factors may have played a role in the methods (Tracy, 2010). For example, it is important to acknowledge that the personal biography of the first author was a motivation for undertaking the current study, since the author had experience of playing and coaching rugby league. Furthermore, the first author previously held a coaching role in a talent development setting within a professional rugby league academy, where he had first-hand experience of the challenges that young players encountered during their time within this environment. These experiences provided an 'insider status' and a common ground which was deemed important to co-construct knowledge in relation to the research aim (Baldwin, 2006). From a relativist perspective, the authors accept that subjectivity can influence the interpretation of the data. To encourage reflexivity on the first author's presuppositions and how they may have impacted on the construction of knowledge, the second and third authors acted as “critical friends” (i.e., a process of critical dialogue between people to challenge interpretations made) to provide a sounding board for reflection and exploration of multiple and alternative explanations for the emerging data (Smith & McGannon, 2017).

Results and Discussion

The thematic analysis revealed 17 lower-order themes, 7 higher-order themes, leading to the development of 3 general dimensions. The dimensions included talent development experiences, reasons for dropout, and recommendations. Within talent development experiences, higher-order themes of coaching behaviour, academy experiences, and player pathway structure emerged. Reasons for dropout were concerned with player values and

player pathway constraints. Finally, higher-order themes within recommendations included player specific recommendations and pathway governance.

With a view to highlighting players' academy experiences and the reasons why they dropped out from playing rugby league, figure 1 was developed to highlight the complex interaction which exists between the interacting micro, meso, exo and macro systems with further analysis provided below of how each component of the system interacted.

Figure 1 here

Talent Development Experiences

Positive academy experiences (microsystem). Participants' experiences of rugby league environments were influenced by the microsystem of the rugby league academy, particularly the proximal processes and interactions with coaching staff. Positive experiences were demonstrated with coaches providing a more autonomy-supportive coaching style, whom were passionate, encouraging, and acted as motivators. Here, players' accounts of a development focus highlighted the importance players placed on individualised coaching, which was exemplified through one-to-one video sessions and coaching that aimed to improve technical or tactical deficiencies. A player provides an example of an individual video session:

> It were individual team video sessions so pick up on your performance, not the team's performance, it were all about you and if you did well, you know, pick up on it and show why you did it well. Look at your technique, that's good or vice versa or if there were something you were struggling with or something you did poor in a game, 'this is your technique, this is what you need to fix up, you need to work on this'. (P8)

Mutual respect and effective interpersonal skills were drivers in influencing players' perceptions of positive coach-athlete relationships, and players suggested that these behaviours helped coaches to build rapport with all players. Ivarsson et al. (2015) suggests

high quality environments involve good coach-athlete relationships where athletes feel an optimal arena for communication about things inside and outside of the sport. Here, the analysis revealed that players discussed certain coaches who developed a reputation for being a 'good guy', these coaches were held in high regard in the local area and held a cult-like status. Coaches of this nature were described as being approachable, having time for players, being patient during learning and skill tasks, and leading by example, as outlined by the following quote:

> Could not find a better bloke. He is worth a million pounds … He knows his stuff and he's got the time of day for you as well. Always trying to help and he was one of those blokes that wouldn't ask you to do anything he couldn't do himself. He would stand there and show you. He wouldn't just bark [instructions]. (P5)

Early positive experiences were categorised by factors that provided a sense of belonging, where 'trust' and 'confidence' were consistently placed in the players by the academy staff and their peers. The account below exemplifies how a player 'felt good' due to the academy staff looking after him and his peers:

> It was really good. I mean training you'd have at least four or five coaches in there but they know what they're talking about and on game day there'd be even more and they were all confident with you. They weren't saying 'we'll shove him in and we'll see'. They were confident with you and [subsequently] there's more of a family bond. (P2)

These findings relate to previous work where positive experiences were demonstrated with coaches providing a more autonomy-supportive coaching style, who had passion, encouragement, and acted as motivators (Fraser-Thomas et al., 2008a; Isoard-Gautheur et al., 2012). Even during stressful situations where academy staff had to make difficult decisions regarding playing opportunities, contract offers, and releasing players from the academy, players still spoke positively about the experience. These difficult situations were made

positive due to academy staff adopting a caring attitude towards the player, and openly discussing the reasons for certain decisions directly. A player provides an example of an academy manager providing an exit strategy to another club following his release:

> I had a meeting and then the week after obviously because I was contracted to them, I got paid out and had a letter through and that was it really, but [coach] was, he was good help to be fair. He helped me get into a different club, different set up. (P5)

Negative academy experiences (microsystem). Within the microsystem of rugby academies, negative experiences were concerned with the perceived change in motivational climate, the prioritisation of physical development over skill development, and players not fulfilling their potential. Poor coach-athlete relationships were cited frequently by players, recalling that they felt unfairly treated. This resulted in a perceived lack of opportunity to play (i.e. time), lack of enjoyment (i.e. context) and lower perceptions of competence (i.e., person) all contributing to reasons for withdrawing from the sport. Examples of negative coach behaviour included poor coach-athlete relationships described as autocratic, domineering, and volatile, resulting in reduced autonomy and competence in the players (e.g., Adie, Duda, & Ntoumanis, 2012). This is exemplified by a participant's comments on his relationship with an academy coach:

> It was the guy's demeanour; he reminded me of a military teacher ... He was just a prick. He was just really nasty.... no one really liked him he was just a horrible person, you tried to chat to him about anything and he was just so serious about training. (P3)

Poor communication has been shown as a determining factor between "high" and "low" quality environments where an inability to communicate with the coach results in a negative impact on players' development (Durand-Bush & Salmela, 2002). Here, poor coach communication was mainly concerned with players not understanding the reasons why they were not being selected to play competitive games. Players felt that "favouritism" was a

reason for not being selected because "your face didn't fit", therefore they did not get many opportunities to play in competitive games. The issue was intensified when coaches poorly explained why players were not being selected:

> I'd ask them questions on what I need to improve on and what I need to do and they'd tell me I'm doing well, they'd tell me sometimes I need to do this and that but it was, they wouldn't give me a valid reason why I wasn't in the team most weeks and that was, I don't expect to get in the team every week but you know I should be playing more than what I was. (P5)

This microsystem impacted on the "Person" disposition, resulting in lower perceptions of self-confidence, satisfaction and autonomy. Therefore, the importance of democratic coaching styles and mature coach–athlete conversations during adolescence is suggested (Wright and Cote, 2003). Previous work in academy soccer has demonstrated that a lack of opportunity to play, not enjoying training or matches, and peer/teammate difficulties are linked to dropout within the immediate environment (Figueiredo, Gonçalves, Coelho e Silva, & Malina, 2009). A more open and transparent communication is suggested, with coaches making an effort to interact frequently with all of their athletes and to solicit information concerning their athletes' perceptions, opinions, and attitudes regarding their sport involvement (Adie et al., 2012).

Players highlighted a culture of overemphasising physical development as opposed to developing game skills, which the players did not consider conducive to their development. The following player outlines the perceived emphasis on fitness from his professional academy experiences:

> It [training] was more emphasising fitness and what your body fat percentage was saying, which I thought was irrelevant to a certain degree… he [fitness coach] used to absolutely beast us, absolutely cane us, I didn't really mind it at the time, but I did feel

like sometimes he went a bit overboard with it. I think they were more concerned with what your rig [body] was saying than what you could actually do as a player which, I was one thing that I didn't really like about the club. (P6)

Players also discussed negative academy experiences in relation to the motivational climate created by key social agents within the academy, such as the academy support staff, coaches, and peers. Accounts were provided about the control that coaches and peers exerted over the squad to play and practice in a certain way. Players considered this coercive approach to limit opportunities to develop game skills and decision-making qualities. A player provides an account in relation to trying skills during game based practice, the skills he was using were not considered congruent with the position he played, where he felt pressure to "train in a certain way":

I suppose there is a lot more pressure to train in a certain way when you are with a professional side, obviously, but if you are at an amateur club you can try and do things, you can, I was a prop forward, I could throw a really long pass and no one would bat an eyelid, but if I tried that in training for [academy] I'd be obviously told off [reprimanded] for it or told I shouldn't be doing that. (P9)

In line with findings from exploring rugby union academies (Rumbold et al., 2018), this type of motivational climate was common across the players' experiences, where the academy environment presented motivational challenges through the behaviourist type of methods employed. These challenges manifested themselves during practice and competitive games, where a focus was placed on perfection and control, leading to players performing actions in a safe manner that reduced risk and eliminated player autonomy:

We did have a lot of skill sessions but I think [coach] was really critical on that. He was always shouting, always screaming his head off, so it was always really hard to relax because everyone was feeling under so much pressure that you feel like 'oh shit,

> I don't want to try this in the game, I don't want to try this because if it goes wrong I'll just get screamed at'. So you were less willing to try something new and be a bit adventurous. (P3)

Here, participants spoke frequency about specialised training, with the focus on "perfect technique" rather than exploring their own skill set to produce actions. This resulted in a range of dispositional characteristics such as, lower self-confidence, a feeling of having no autonomy and decreased motivation. This study highlights the importance of carefully structured programmes that focus on physically and psychosocially developing individuals rather than simply on the "perfect" performing athlete. This finding supports Burgess and Naughton's (2010) suggestion to move away from prescribing precise training hours or regimes which are embedded with deliberate practice models (Ericsson, Krampe, & Tesch-Römer, 1993). Rather, it may be beneficial to adopt a holistic framework of individualised training, with the ability to alter programmes according to the monitoring of feedback from talent development specialists, who in turn, work with coaches, teachers, and parents.

Reasons for Dropout

Player pathway structure (exosystem). Players discussed exosystem factors such as coaching frameworks not supporting players' motivations and the challenges associated with identifying talent too early on in adolescence. Players discussed examples of peers who were selected to play for international representative sides early on in adolescence, suggesting that players who experienced early physical maturation had an advantage over other players (Cupples et al., 2018). One player provided his perspective on the issues associated with selecting young players for representative programmes:

> Some people that got selected at 12 years old were still pushed even though they were 18, which if they are good enough fine, that's brilliant, but then you have got really good players that maybe weren't as [physically] developed as they were at 12 years

> old but can't get in [the system]. That is a massive thing. I don't understand why they had a [Nation] youth [team] that young because it's not an indication of where you are. (P2)

This quote highlights one of the constraints of a rigid exosystem factor, such as a relative age effect and physical maturation (Cupples et al., 2018). In this way, the general consensus amongst ex-players was that relative age effect can make it increasingly difficult to enter or exit a microsystem, presenting talent identification challenges to players who matured later on in adolescence. As Simonton (2001) proposed, coaches and governing bodies employing these systems focus on early adolescent performance results, demonstrating a "win-at-all-costs" mentality that may, in fact, impairs future performance. An important component of the Process-Person-Context-Time (PPCT) model is the interaction of the PPC over time (Bronfebrenner, 2005). Our findings suggest a long term development focus needs to be better embedded, to allow adolescents to fully develop and utilise their potential. The findings suggest that often, player development pathways were too rigid and did not allow the flexibility that is required in changing interactions between various microsystems in the adolescents' development. An important component on reasons for dropout from players' perceptions was a focus on immediate results, rather than long term development being central to the programme aims. Fraser-Thomas et al. (2008a) suggested that sport performers who remain engaged in their sport for prolonged periods advocate a developmental philosophy, with a delayed specialisation and a stronger focus on personal development. Players' accounts suggest that some of the players themselves, and their peers, did not benefit from being selected for representative sides early on in adolescence:

> I don't think it is a good thing to categorise people at such a young point because I also know a lot of people that were in [National] youth at that age, thought they'd made it at 13 years old and didn't get anywhere near

> becoming [senior full-time professional], so I don't think it is good for some of the people that are actually in it [the system]. I don't think it is a good thing for the people that aren't in it, either. (P4)

Players also discussed struggling to cope with the transition from playing amateur rugby, such as the physical struggles and the change in environment leading to lower levels of enjoyment and motivation, which supports similar challenges encountered in rugby union academies (Rumbold et al., 2018):

> No middle ground, like no middle ... It's just straight into it and I think that's really hard to [cope with], unless you really want it. Fair play to the ones who coped with it really well. Unless you really want it and that's what you really want to do then that's what you have to do. I think for the rest of them a lot of people don't develop like that. I think a lot of people go the opposite way and act out and just really don't enjoy it anymore, so maybe throw in a bit more time or make it a lot easier to integrate from one to the other. (P3)

Players here spoke of a linear, inflexible, and prescriptive player pathway structure reporting that the pathway did not support the non-linearity of players' development. A player presents his experiences of being released before he had matured physically. This challenge was also increased through the removal of an older age category that would have provided the player with further development opportunities. He explained:

> Then later on when it got to actually 18 and they got rid of the under 21 system, I suppose it sort of became like if you are not good enough for 18 are you actually going to be good enough to play at all? At that time obviously, physically for a prop forward myself there's no way at 18 I'd be physically developed enough to play at Super League level with players who are twice my size. (P3)

Education (mesosystem). A mesosystem encompasses situations where two or more

microsystems come together in some respect, here values of education and rugby clashed influencing players choices to dropout (Keathley, Himelein, & Srigley, 2013). The theme of education was a common area discussed by the players, who felt that their education was more important to them than a career in rugby league. Participants often reported conflicts between rugby, school / education and social / recreational opportunities. As highlighted previously in soccer (Crane & Temple, 2015), rugby players had similar issues with conflicts between sporting commitments, education, and time spent in social settings with friends. For some players, this dilemma presented a situation that meant education came first, at the expense of a career in rugby league. The following player discusses wanting to complete a work apprenticeship, but also wanting to continue their rugby league career:

> Let them [players] do what they want to do. If they want to go to University, if they want to go on to do an apprenticeship, if they want to carry on at college then support them and give them something, they will enjoy rugby a hell of a lot more once they come out of school ... I think, let them do what they want to do and you'll get a ten times better player. It would have kept me in the game. Let me finish my apprenticeship, work with me and I think I'd have developed into something. (P5)

The ability to cope with the demands of excelling in both sport and academia, and with the pressure put on athletes by their coach and parents is an important success factor for adolescents in elite training environments (Isoard-Gautheur et al., 2012). These findings suggest high quality talent development environments require well established relationships between the club, coaches, parents, and school, to support both the participants' sporting and academic aspirations (Ivarsson et al., 2015).

Finance (exosystem). The lower-order theme of finance was concerned with full-time contract offers post-academy rugby. Players did not consider the contract offers to be of value to them, and turned the offers down:

> [head coach] tried putting a proposition forward to me with first team. I think it was about £9,000 a year… I could earn more than that going to work and I'd have had better prospects…That job was there until I was 65. I wanted it but for £9,000 a year I wouldn't get out of bed. They like to say that it's a family and it's all about the person and the players and we all work together, but the favourite words are used when it doesn't go their way, "it's a business, it's a business, we've got to make money". (P2)

One player also shared his experiences of being offered a first team contract, but the financial instability of the club along with a reduced wage influenced his decision not to take the offer of a first team contract:

> They wanted to keep me. The intention was to put me into the first team the year after but I was going to be on less money than I would be on now. At this point I was questioning whether I wanted to be a professional rugby player and also I thought even if I stayed [club] are they going to go bust in a year's time so, OK, thanks for the offer, think about it. Talked it over with my dad and decided that it was probably not the best place to be at the moment, which was a shame because I loved it. (P4)

Transition to other clubs (macrosystem). The lower-order theme of transitions was concerned with players' ability to cope with the transition from amateur to academy rugby league, and the challenges associated with transitioning to amateur rugby league clubs post-academy. Players also had poor experiences of trying to transition to other professional clubs, where club representatives demonstrated unprofessional behaviour towards players, leading to them not taking the opportunity to join another club.

> None of them really cared … it wasn't just me, there were a few others that got up to them [club] as well … went to speak to them. They were late, didn't care. They got names mixed up, you know … I have driven to [sport organisation venue] for them to not turn up, for them to get my name wrong, and then they'll offer you a place. No

thank you. And that left a bad taste in the mouth. (P8)

Recommendations

Within the dimension of recommendations, two higher-order themes of player specific and pathway governance were identified.

Player specific (microsystem). Player specific recommendations were based on training and learning and expectations. Training and learning recommendations were concerned with not overtraining, actively exploring opportunities to experience physical adversity through playing in older age groups, and playing rugby league with autonomy. Research has demonstrated a mixture of benefits and risks of ‘‘playing up’’ (Wright & Côté, 2003). Here, participants felt that playing against older players forced them to develop tactical and technical skills rather than “not rely on one element (physicality)” but to “try and mix it up a bit”. A participant discusses playing in a year above for a whole season, and explains how beneficial this was for setting the “platform” to transition into an academy:

> Under 15s we played a year above. We played in the second division of the [region] league and I think we won it. The age above and that was always tough. Always very physical … That set the platform for me. (P3)

Few talent development models encourage the development of self-regulated learners, despite the support for the benefits of developing self-regulation skills (Adie et al., 2012). Participants discussed the importance of playing rugby league with autonomy, due to the enjoyment and playing benefits associated with a “free role”:

> Sometimes I think people play better if they get a free role. When we were coming through at that sort of age it wasn't 'you pass it to him' or 'you pass it to him' ... Play what you see as opposed to playing a set play … so just enjoy it. I wouldn’t change how you play, play to your structure, but play what’s in front of you and enjoy what you are doing, that’s probably what I would advise [players] to do. (P9)

Participants also provided recommendations on expectations, which included, keeping your options open, being realistic, preparing for failure, and to try to start playing again to prevent permanent dropout. One deselected player provided a very honest account of the rugby league landscape, the chances of progressing at the senior professional level, and keeping future options open:

> I suppose it depends what position you are in when you leave. I think that it is important for them joining that they actually understand that there is a very, very large possibility that you are not going to do this. You know there are only 17 people that can play for 12 Super League teams, so not everyone is going to do it. Chances are it is going to be very tough. Don't be naive to think that just because you are a good player then you are going to be a good player in two years' time. Still go down the route of getting an education, have other options, whether that's doing any courses, apprenticeships, but make sure that you are ready for when they come and say 'sorry we are not going to be taking you on'. (P4)

Participants in hindsight also spoke about the importance of trying to enjoy rugby league again. In particular, although none of the participants had returned to playing rugby league at any competitive level, they encouraged future ex-professional players to try participating at the amateur level to prevent permanent dropout. Participants felt that this was important for health and well-being reasons and reflected that players should not feel embarrassed about dropping down in levels; rather, they should embrace what first attracted them to playing the sport:

> I'd probably say just try and get back to enjoying it. I felt kind of, I wouldn't say embarrassed but …. I'd played at such high levels and I am going to be dropping back down to this level. What are people going to say? What are people going to think? I'd say don't think like that. Don't worry about that, just get back [to playing] and enjoy

your rugby. You obviously enjoy it; that is why you were playing it originally. [Professional rugby] It is a different game compared to amateur … it does become a business whether it is right or wrong, just get back into it [rugby] and enjoying it (P8).

Pathway governance (macrosystem). Pathway governance revealed three lower-order themes of support, coaches, and player pathway structure. These recommendations were concerned with player pathway factors that could be improved to provide a more supportive player environment, and to focus more on providing a player pathway that better supports the non-linearity of talent development. In line with some previous research on career transitions (Baron-Thiene & Alfermann, 2015; Brown & Potrac, 2009), the lower-order theme of support was concerned with offering players more support during their time in the academy and post-academy, following their discontinuation. Participants categorised support as education workshops, tutoring support whilst undertaking formal education programmes, and support with finding paid work to supplement their academy pay. One participant discussed their experiences of struggling to complete the workload associated with undertaking a further education course that was linked to the academy, suggesting that better support would have helped him to cope better:

He [head coach] did make it out to be quite a doddle [easy] to all of us, but when you went there it really wasn't and I couldn't keep up with the workload. It was ridiculous, a ridiculous change. (P7)

Participants also discussed valuing the extra education sessions that were provided for them by the national sport governing body, although, participants felt that more of these sessions would have been beneficial:

I think maybe … a few more of those days, but hitting on setting different topics and areas. I think they just did, I remember I think it was drugs, coping pressures and social media or something like that. (P6)

The lower-order theme of coaches was concerned with participants' recommendations to improve coaching behaviour in order to provide a better experience for players. The main areas that were discussed by the participants were increased coach-player interactions and coaches being honest. Participants discussed some coaches who did not engage in any social interaction with the players, suggesting it was important that coaches were not a “friend”, but interacted more so they could help with “whatever they need”. Participants also discussed the importance of coaches being honest with players, especially in regards to selection and contract matters. A participant discussed the importance of coach honesty when dealing with players' futures:

> Instead of giving them false hope, yeah it might put them down but they’ll get over it, rather than [head coach] saying that they can do it and they get to a stage when they know they can’t and they are like 'ah, I have been sold false dreams'. (P1)

Under the lower-order theme of player pathway structure, participants recommended that better links between professional and amateur clubs should be forged, and the development pathway should be extended past the current under 19s age group structure. Players proposed that extending the pathway to under 21 would provide more of a physical and psychological challenge to younger developing players:

> Yeah you have to step up. I think if you play with better [older] players or bigger and faster players or whatever, it brings the best out of you because you have to train that little bit harder, push that bit harder. (P8)

Practical Recommendations and Future Work

Many sport programmes emphasise institutionalisation, elitism, and early specialisation (Coutinho et al., 2016). The findings of this study suggest a developmental approach is required to decrease dropout, but also ensure that elite adolescents have the opportunity to reach their full potential. Our findings eco that of previous work in terms of creating a

positive coaching environment that create and maintain a supportive, mastery-orientated environments for both adolescent success and psychosocial well-being (Ommundsen, Roberts, Lemyre, & Miller, 2006). To encourage a positive motivational climate, coaches can provide corrective instruction in a positive way, encouraging players to learn from their mistakes, reinforcing positive behaviours and provide players with more autonomy during practice (Martindale et al., 2005). More resourceful inter-personal relationships, where coaches and club support officers are better skilled at helping youth players navigate the non-linear pathway towards expertise (e.g., when a player is not selected for a team) could help in the reduction of drop-out from the sport. Furthermore, coaches or rugby clubs may wish to monitor intention to dropout during the season when there is still the potential to intervene. For example Quested et al. (2013) used two simple questions to monitor players' intention to drop out, and these questions could be incorporated with an open-ended opportunity (e.g., Keathley et al., 2013) to identify important reasons for why players intend to dropout. It should be acknowledged that the findings represent participant accounts of their experiences rather than necessarily actual events that occurred in talent development environments which may subsequently be subject to forms of bias (e.g., recall bias). Hence future research should look to extend on these initial findings using other methodologies (e.g., ethnography) to explore the actual events that occur in these environments.

Conclusion

The findings highlight that dropout from rugby league is a complex and multidimensional phenomenon. Here, a bioecolgocial model was used as a framework to guide the discussion between how Process-Person-Context-Time may interact to result in dropout. Our findings build on previous work in arguing that talent development pathways which lack a longer-term focus, a healthy support network and emphasise early success are likely to result in increased risk of burnout, de-motivation, and subsequent dropout. Hence,

learning environments such as talent development pathways must consider the many personal and environmental factors which interact to determine an individual's talent development trajectory. By recognising the multiple factors that influence development based on the participants' accounts (e.g., training, learning and governance recommendations), the effectiveness of development pathways will improve by neither excluding 'potential' through inappropriate early identification, nor ignoring crucial talent development variables that contribute toward the fulfilment of potential.

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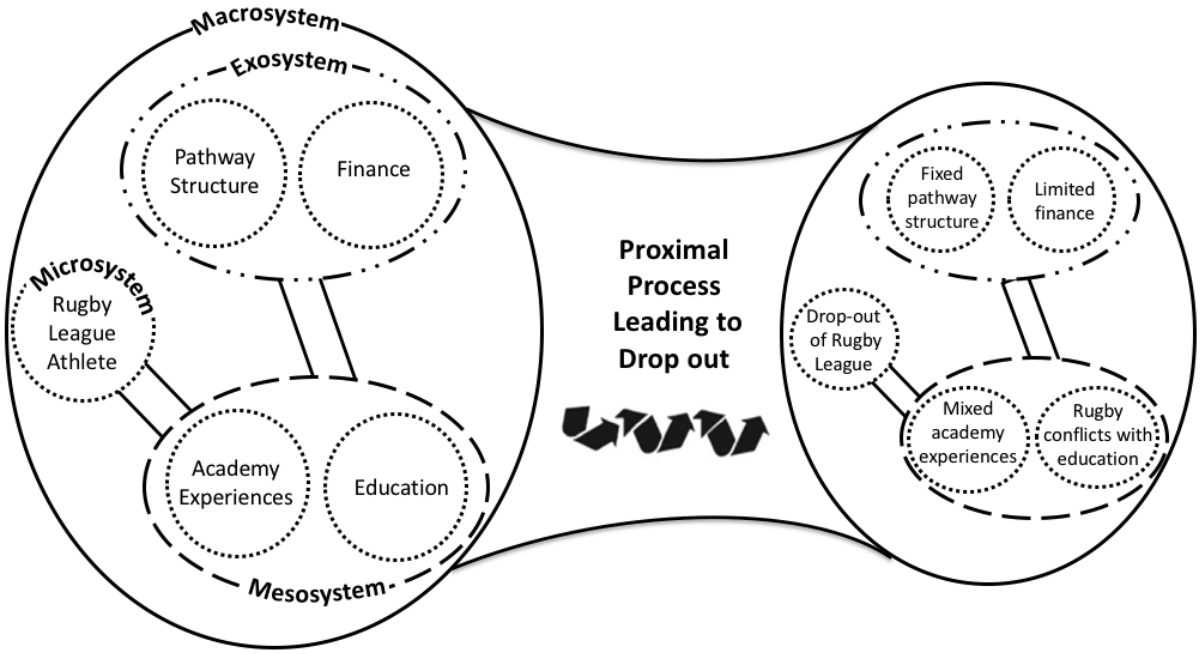

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815 **Figure 1.** Illustration using the bioecological model (Bronfenbrenner, 2005) of the complex sub-
816 systems, micro, meso, exo and macro systems which interacted over time (i.e. proximal process)
817 leading to dropout in Rugby League. For example, two micro-systems (academy experiences and
818 education) were in conflict within the mesosystem resulting in a choice between rugby or education.