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**PROFESSIONAL MALE RUGBY UNION PLAYERS' PERCEIVED  
PSYCHOLOGICAL RECOVERY AND PHYSICAL REGENERATION DURING  
THE OFF-SEASON**

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## **ABSTRACT**

**Objectives:** We explored male professional rugby union players' experiences and perceptions of their mental and physical health and well-being across the northern hemisphere off-season.

**Methods:** 34 professional male rugby union players participated in individual semi-structured interviews (mean (SD) age=27.5 (4.3) years). Interviews were recorded, transcribed verbatim, and analysed using reflexive thematic analysis.

**Results:** The off-season was characterised by three phases players undergo to preserve their mental and physical health and well-being to recover from the previous season and regenerate in preparation for the upcoming season. These included decompression from previous season, cognitive detachment from the rugby environment, and preparation for pre-season. Successful progression through all three phases was influenced by several variables (work and life demands, contextual factors, experience level). Recovery and regeneration strategies focused on physical distancing/getting away from the rugby environment to cognitively detach. Injured players appear an at-risk sub-group for threats to mental well-being (isolation, anxiety, reduced sense of achievement) as a result of reduced or minimal time away from the workplace due to treatment obligations. Younger professionals are a sub-group at risk of overtraining/injury due to inadequate rest, especially as this group are least likely to seek support/guidance.

**Conclusions:** This study is the first investigation into male professional rugby union players' experiences and perceptions of their mental and physical health and well-being across the off-season period. It highlights the distinct phases players undertake to mentally recover and regenerate and the need to consider education and support for potential at risk sub-groups.

### **What is already known on this topic?**

- Training and match loads impact upon injury and illness in professional rugby union, yet no consideration has been given to how players recover from the cumulative demands of a competitive season.

### **What this study adds?**

- Players undergo distinct phases in the off-season to preserve their mental and physical well-being to recover in preparation for the upcoming season, with work and life demands, contextual factors (e.g., player health, contract status) and experience levels influencing this process.
- Psychological recovery strategies focus on physical distancing/getting away from the rugby environment to cognitively detach.

### **How this study might affect research, practice, or policy?**

- Players should receive sufficient time (5-6 weeks) in the off-season to progress through the phases of recovery and regeneration to prepare for the upcoming season, with consideration for the impact of work and life demands, contextual factors, and experience levels.
- Education should be provided to all stakeholders regarding the importance of the off-season period for well-being (recovery and regeneration), together with strategies that can be utilised to enhance the quality of this process (i.e., physically distancing from work environment to support cognitive detachment from rugby, engaging in development activities that nourish holistic identity and personal skill development).
- Clinicians should support, where appropriate, player sub-groups at risk of threats to well-being and welfare in the off-season period (long term or recently injured and younger professionals).

## INTRODUCTION

Rugby union is a dynamic sport with position-specific demands requiring strength, power, speed, agility, and the ability to repeat high-intensity running and nonrunning efforts [1]. These demands consequently result in high levels of fatigue, linked to physiological, biochemical, and psychological non-functional adaptations during intensive periods of training and competition and across an entire season [2,3,4]. For example, Cross et al. have identified increased injury risk from high one-week cumulative training loads or large week-to-week changes in load, together with a 'U-shaped' relationship for four-week cumulative loads. In relation to match exposure, Williams et al. have observed accumulated (12-month) and recent (1-month) exposure substantially influences current injury risk. Negative states representative of sport burnout has also been reported across a rugby season, with detrimental effects upon performance and welfare [5]. Burnout symptoms have also been associated with injury, non-selection, and a negative/maladaptive rugby experience and team environment, with more injuries leading to greater feelings of exhaustion/devaluation associated with burnout [6].

While knowledge and understanding exists regarding the impact of training load and number of matches played respectively upon injury risk, and experiences of burnout, there has been no consideration of how rugby players physically and mentally recover from the cumulative demands of a competitive season (i.e., in the off-season, typically lasting 5/6 weeks in the northern hemisphere). The literature to date has only considered psychological and physical recovery from an acute perspective [7] (i.e., in the week following a competitive match).

Recent work in sports science and medicine has examined the psychology of recovery and the strategies needed to recover from the mental fatigue of competing in sport. Whereas physical detachment (i.e., physical rest or inactivity) is considered as one modality of dealing with physical fatigue, mental detachment from sport can be considered the primary way of dealing with mental fatigue [8]. Mental detachment includes both cognitive and emotional aspects of detachment and refers to an athlete's sense of being away from the cognitive and emotional demands of training or competition [9]. The importance of cognitive and emotional detachment in sport has recently been highlighted in relation to recovery between training days [9] for avoiding mental fatigue [10], and for well-being in general [9]. To date, no research has specifically considered mental detachment in the context of the off-season period.

Given the emerging nature of the research on the psychology of recovery, there is a clear need to understand the more cumulative or chronic effects upon rugby players from the various stressors associated with the professional game across the season [11], and the subsequent strategies utilised to psychologically recover and physically regenerate from these demands to prepare for the subsequent season. This is particularly pertinent given concerns regarding the long-term consequences (e.g., burnout and increased injury risk) of 'excessive' match exposure demands [4]. This study sought to explain the phenomenon of psychological recovery and physical regeneration of male professional rugby union players during the off-season. Specifically, we used a qualitative approach to gather the beliefs and experiences of players regarding their mental and physical health and well-being across the off-season period and identify the psychological and physical strategies adopted to recover and regenerate in preparation for the upcoming season.

## **PARTICIPANTS AND METHODS**

### **Design**

We adopted a qualitative descriptive method, comprising semi-structured interviews, to explain male professional rugby union players' psychological recovery and physical regeneration experiences during the off-season. Qualitative description is a widely used approach identified as important and appropriate for research questions focused on discovering the who, what, and where of events or experiences and gaining insights regarding poorly understood phenomenon. [12]. A qualitative descriptive approach was deemed appropriate for the current study as the off-season is a phenomenon yet to be explored from a player perspective within professional male rugby union. Data was collected via semi-structured interviews as they provide a flexible approach for participants to elaborate on the meanings they attach to their experiences, thus providing the interviewer with a deeper level of understanding [13]. Our study was underpinned by the philosophical position of critical realism [14] that attempts to generate knowledge through observation and asking questions to better understand the mechanisms that explain events whilst generating potential relationships between concepts within a general framework (e.g., experiences of psychological recovery and physical regeneration and subsequent mental and physical health and well-being). Critical realism assumes that knowledge is socially produced and inherently fallible. Consequently, it relies upon research findings being examined and expanded upon to further develop understanding. The findings and conceptual framework presented in this paper therefore offer an important development to understanding psychological recovery and physical regeneration within professional rugby.

### **Recruitment**

Interviews were conducted with 34 male professional players with a mean age of 27.5 years ( $SD=4.3$ ) from a variety of nationalities, playing locations, and player statuses (Current country played in - England=19; France=4; Ireland=5; Wales=6; Nationality - French=4; UK & Ireland=30; player status - academy player=4; first team squad=24; current international=6). Interview participants were identified using purposive sampling, whereby National player association representatives were asked to nominate players with a range of playing experience (i.e., 0-3, 3-5, and 5+ years) at the professional level of the sport. The public was not involved in the design of this study.

### **Data Collection**

Interviews lasted an average of 55 min (range =25–65) and were informed by a semi-structured interview guide comprising questions that directed the general topics of discussion including: demographic and rugby specific questions (e.g., age, role, position); physical and mental well-being experiences in the most recent off-season period; off-season psychological demands; coping strategies; and current practices adopted for psychological recovery and physical regeneration in the off-season. The off-season period was defined as the period immediately following the formal end of the competitive professional season to the start of the next. Participants were also asked and provided with time at the end of the interview to discuss anything which they felt important which hadn't been mentioned. Questions were generated from discussion among meetings of the research team, who all had significant experience of one or more of the following: publishing using qualitative methods; conducting research into stress and well-being in rugby union; and practicing/participating within the sport. Thirty interviews were conducted in English by the first and second author, and four in French by the fifth author (who translated the interviews into English following data collection). All interviews were conducted virtually via Microsoft Teams during the period from September 2018 to October 2019.

## **Data Analysis**

Interview data were analysed using a 6-phase reflexive thematic analysis [15]. Reflexive thematic analysis provides an easily accessible and theoretically flexible interpretative approach to qualitative data analysis that facilitates the identification and analysis of patterns or themes in a given data set [15]. Phases 1 and 2 of the reflexive thematic analysis involved the first and second author engaging in a process of familiarization (i.e., reading and re-reading the transcripts, making informal notes) and line-by-line coding (i.e., systematically identifying and labelling ideas or concepts related to the research question), respectively. During phase 3, coded extracts were organized inductively into themes by considering patterns in the perspectives of participants regarding their off-season experiences. Themes were collaboratively reviewed, discussed, and refined in Phase 4 and synthesised into a provisional conceptual framework representing perceptions of the off-season phases, factors influencing psychological recovery and physical regeneration, and the subsequent impact on well-being. Additionally, the remaining members of the research team acted as critical friends to challenge the first and second authors to consider assumptions, act as a theoretical “sounding board”, and to facilitate richer interpretations of meaning for the findings [16]. As such, codes (and the framework) were iteratively revised and regrouped throughout this stage. The resulting themes, sub-themes, and conceptual framework generated were named in Phase 5, with the final phase involving writing up the results (led by the first author), with subsequent review by all the research team members in relation to coherence, logical nature, and application to its multiple audiences (reviewer, practitioner, player). Data analysis was also characterized by retrodution, a key feature of critical realism involving integration of subjective and objective knowledge [17]. Here, retrodution initially involved inductive reasoning which enabled organic development of themes; however, deductive reasoning also played a role. For example, sub-themes describing perceived off-season phases and the subsequent factors influencing psychological recovery and physical regeneration were informed by the contemporary literature regarding the psychology of recovery [8] and the psychological load or demands athletes encounter [18] respectively. The final stages of analysis involved deductively identifying and grouping sub-themes and influencing factors that clearly resonated with the contemporary literature. The movement between subjective participant meanings and established theoretical explanations was also used to examine the mechanisms and contextual conditions influencing psychological recovery and physical regeneration (i.e., the influence of participant experience level, health status upon well-being), thus enabling a deeper understanding of the phenomenon [13].

## **Researcher Reflexivity**

Researcher reflexivity considers the role of the researchers' background, self-identities, and values in the research process (e.g., data collection, analysis, results presentation). Within the current study all the authors were white heterosexual academics with doctoral degrees who were actively involved in research projects within professional rugby or had previously published academic work in professional rugby populations. In addition, at the time of the data collection the first, fifth and sixth authors were actively working as mental health/player welfare professionals in the professional game in their respective countries. Awareness of these identities was used to reflexively position the research team as both insiders and outsiders in the research. For example, the authors working within the professional game allowed for credibility and insider status with regards participant recruitment and data collection. It also allowed these authors to draw upon their own personal practical experiences and observations of the research topic when engaging with data analysis and subsequent interpretation of findings. For example, the reported feelings from players of having insufficient time away from the sport due to a reduced off-season period were common observations noted. The other

members of the team, as outsiders, were able to bring experience of undertaking research within the population of study and challenge potential implicit influences on the interpretations of the inside members through the data collection and subsequent analysis processes. For example, connection with non-rugby environments and relationships was originally proposed merely as a strategy employed within the decompression/cognitive detachment phases. However, the outsider members of the team challenged this conceptualisation, proposing the lack of ability to connect with non-rugby environments and relationships was a sub-theme that impacted on the broader psychological well-being of the individual.

### **Methodological Rigor**

A list of criteria was adopted to consider the methodological rigour of the work [19], including credibility, reflexivity, philosophical assumptions, resonance, and significant contribution. For, credibility (i.e., the extent to which the research is plausible and persuasive) in-depth illustrations of the data provided thick description regarding context-specific meanings. For reflexivity (i.e., how the interpretation of the data has been challenged and developed) members of the research team acted as 'critical friends' to encourage reflection upon multiple/alternative interpretations throughout the data analysis and writing. Philosophical assumptions refer to the assumptions stated which are consistent with the research processes and conclusions. Specifically, in our study epistemological social constructionism and ontological realism informed the development of the research question, methodology, interpretations of data, and discussion of results. Resonance considers the extent to which the research meaningfully resonates with the reader. In this respect we have offered thick description and rich interpretation of the data, through a guiding framework, potentially transferable to different situations. For significant contribution (i.e., the degree to which the work extends knowledge and practice) the work has provided a novel understanding of the strategies undertaken by professional rugby union players in the off-season, generating a conceptual framework to inform subsequent research and practice.

## **RESULTS**

Reflexive thematic analysis of the interview data is summarised in Figure 1 in the form of a conceptual framework which illustrates three themes: player perceptions of the phases of the off-season, the factors influencing psychological recovery and physical regeneration, and subsequent impact on well-being. Tables 1-3 present sub-themes and example participant quotes for each of these themes. The framework suggests that the off-season is characterised by three phases that players undergo to preserve their mental and physical health and well-being to recover from the previous season and regenerate in preparation for the upcoming season. These include decompression from previous season, cognitive detachment from the rugby environment, and preparation for pre-season. Successful progression through all three phases appears to be influenced by a number of variables including the work and life demands a player is encountering at the time, contextual factors such as their health status (i.e., currently injured, or ill), and their level of experience in the sport (e.g., previous experiences of the off-season). Successful progression through these phases of the off-season, in terms of mental and physical well-being, is characterised by perceptions of recovery and regeneration from the psychological load of the previous season and the ability to connect with non-rugby environments and relationships.

### **Phases of the off-season**

The first theme, phases of the off-season (Table 1), comprised three sub-themes that players reported progressing through to preserve their mental and physical health and well-being to recover from the previous season and regenerate in preparation for the upcoming season: 1)

decompression from the previous season; 2) cognitive detachment from rugby; and 3) preparation for the upcoming pre-season. Decompression from the previous season described attempts to unwind or come down from the intensity of the day to day demands of professional training and playing, due to an inability to immediately switch off from rugby as soon as the season had finished. Example strategies included taking a vacation with teammates or spending time at the club getting treatment for unresolved minor injuries.

Cognitive detachment from rugby referred to the period where players genuinely felt able to mentally switch off and detach fully from thinking about rugby-related demands. This period was viewed as essential to promoting psychological recovery and was frequently characterised by some form of 'vacation', typically with personnel other than teammates, in a different environment/geographical location to where the player was based.

Preparation for the upcoming pre-season described the activities players engaged in ready for a return to the rugby environment. Consistent across participants was the act of undertaking a period of physical and mental conditioning to prepare for the demands that would be faced on returning to rugby and beginning pre-season training.

### **Influencing factors**

The second theme illustrated in the framework is influencing factors upon psychological recovery and physical regeneration during the off-season (Table 2). Specifically, the ability of players to successfully progress through the three phases of the off-season was reported to be influenced by several variables including: rugby and life demands encountered, contextual factors, and experience level.

Rugby demands referred to factors related to the professional rugby environment which influenced the ability to engage in the off-season phases to recover and regenerate sufficiently. For example, reductions in the designated length of 5-6 weeks for the off-season due to an extended regular season forced players to compress their plans, often leading to a perception of a lack of time to engage in recovery and regeneration. Additionally, the expectation regarding what activities players were required to undertake in this period also impacted upon well-being, such as scheduled conditioning sessions at the team training ground. Here players reported the level of autonomy they were given over their off-season training was salient, with more autonomy leading to greater perceptions of a successful off-season. Similarly, increased clarity regarding upcoming pre-season expectations from team management and staff, e.g., when players felt informed about the upcoming pre-season content/schedule, was reported to reduce rugby-related burden in the off-season.

Life demands included: non-rugby/personal responsibilities, such as getting married or attending family events; interpersonal challenges i.e., relationship with partner, managing childcare; and planning for retirement from the sport by engaging in vocational training/study/career development. Players described how these factors impacted on their ability to feel as though they were engaging in meaningful recovery and regeneration practices.

Several contextual factors were suggested to impact upon the quality of the off-season experience and the ability to psychologically recover and physical regenerate. For example, a player's health status going into the off-season dictated whether they were able to switch off and fully cognitively detach from the team environment and undertake physical regeneration as desired, or whether they had to attend the team environment for regular medical



**Table 1: Sub-themes and example quotes describing the perceived phases of professional rugby union off-season**

Sub-themes	Example quote
Decompression from season	“I think you probably, especially if the season doesn’t end the way you want it to end... you might spend that first week dwelling on what’s gone, maybe even longer, and you're still thinking about it because that’s the way you're conditioned to think really. You're conditioned to analyse what you’ve done, what you could do better, how you can improve.” P1
Cognitive detachment from rugby	“I went on my first non-rugby-related holiday for five years... did me the world of good... completely switched off from rugby. I didn’t think about rugby the whole time I was there... I came back and I felt like a different person. I was ready then to go, ‘Actually, you know what, I’m ready to get back into the physical activity, I’m ready to get back into pre-season. I’m ready for this.’” P15
Preparation for pre-season	“And then that last two weeks is when you sort of start ramping up because you’ve had four weeks to completely sort of freshen up and then you’ve got two weeks to build yourself in, so you’re not coming in poor shape or getting injured.” P2

\*P denotes participant

**Table 2: Sub-themes and example quotes describing factors perceived to influence psychological recovery and physical regeneration during professional rugby union off-season period**

Sub-themes (and influencing factors)	Example quote
<p>Rugby Demands</p> <ul style="list-style-type: none"> <li>- <i>Length of the off-season</i></li> <li>- <i>Level of off-season expectations</i></li> <li>- <i>Level of autonomy over off-season training</i></li> <li>- <i>Level of clarity of pre-season expectations</i></li> </ul>	<p>“We were supposed to be off, we got told that our season ended on a certain date and then they put a play-off in later and decided the date was about three or four weeks away, I think three weeks after the season actually finished. So, we had an extra three weeks in [training], so then it cut down [the off-season] a little bit, I think it took a week off what we were actually going to have off.” P11</p> <p>“They give us runs and things to do but in fairness some of them are quite hard but they’re under your own control, you can do them whenever you want, so it’s very flexible, so you, if you want to, if you want to have a couple of nights out or you want to do whatever you want, whenever you want, you can, which is nice to just be away from a very stringent schedule because during the year it’s very set, like you’re never your own boss, so it’s nice to be able to run your own show for a while.” P6</p>
<p>Life Demands</p> <ul style="list-style-type: none"> <li>- <i>Non-rugby/Personal responsibilities</i></li> <li>- <i>Interpersonal challenges</i></li> <li>- <i>Planning for retirement from rugby</i></li> </ul>	<p>“You don’t relax, you don’t switch off, you don’t enjoy your holidays ... I went to a wedding for three days and then I went [on holiday abroad] and like I say I was in the gym every day and my partner at the time, she didn’t get it. My partner doesn’t understand when you're on holidays that you're not actually on holidays because we could get up at 9 o'clock and my partner might not see me until 12 because I've got to locate a gym, go to a gym, or rehab session or whatever. And it seems hard on the people that are around you as well that they don’t see you.” P7</p> <p>“If you’re like in your thirties and you’ve got another season you might use that four or five weeks and you can think, ‘Right, I know I can go in physically fit because I'm doing a bit’, but you’re going to have to absolutely prep yourself in the off season. You can also spend it [off-season] investing in your outside interests/business because you know this could be your last year of rugby.” P12</p>

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### Contextual Factors

- *Health status*
- *Contractual status*
- *Physical load experienced in previous season*
- *Psychological load experienced in previous season*

“I spent all the summer in the physio room, which is a lot tougher than just coming back and training because you’re having to do the fitness and stuff, but you’re doing a lot of it on your own. That mental strain on it as well, it makes a big difference... It just, you know when you’re there and you’re like frustrated the fact that you’re injured, you know other people are away enjoying and you know you’re back in because you’ve got earlier into the grind of the thing and there’s probably five of you here rather than fifty of you here... And you also know that maybe if two or three of those boys have got the same sort of injuries, they’re doing rehab together and all of a sudden, you’re the one going in on your own because nobody’s got the same injury as you. Yeah, as well as the fact that you know that, from my experience of that and I knew from a couple of years back that at some point I was going to struggle the fact that I’d only had two weeks off and I hadn’t had a chance to debrief the season.” P11

“This year it’s a contract year for me and I’m worried about if pre-season doesn’t go well and I get off to a bad start, you know, I could be having contract issues and stuff like that.” P5

“Especially when you play so regularly, I think you need that time off, not just for your body but mentally and away from the place, especially with the position that we’re in a high performing club. We were fighting off a relegation battle last year which is quite... amongst all the physical stresses, it also adds quite a lot of mental stress, so that break from everything, being away from the club for that period of time was something that was essential if we were going to come in and refresh and actually be able to commit to putting in a load of effort, into pre-season and the following season.” P3

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### Experience

- *Stage in playing career*
- *Ability to detach from rugby related cognitions*
- *Knowledge and experience of physical and psychological conditioning/recovery techniques*

“Some lads, younger lads especially, who are trying to make a name, they just burn out because they try and sort of match all these expectations.” P2

“I’m still learning to convince myself that sometimes a week off doing nothing and just house stuff or family stuff or business stuff is actually good for you, physically and mentally really.” P21

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treatment or rehabilitation. Players described feelings of isolation, anxiety, and a reduced sense of achievement when having an injury and undertaking rehabilitation during the off-season. Contractual status (i.e., if a player was going into the final year of their contract the following season) was also reported to impact upon the ability to fully detach and put rugby out of the mind. The demands from ongoing contract negotiations and the associated considerations, such as moving club, changing geographical location and social network for both the player and their family, all impacted on the quality of the off-season experience. Several players also discussed how the extent of the physical and psychological load experienced in the previous season impacted on recovery and regeneration. Individuals who had played a large number of matches in the preceding season described how it took longer to recover due to the accumulation of physical and mental fatigue. Those who had less game time across the previous season described that while physically they needed less time to regenerate, the season had still posed a high psychological load (e.g., due to the demands of training), requiring time for psychological recovery in the off-season.

Level of experience described the amount of experience regarding managing the off-season period. Some players discussed how they were able to successfully 'switch off' and detach from rugby-related cognitions using physical and psychological recovery techniques (e.g., taking a vacation, connecting with friends and family, engaging in non-rugby conditioning) that were learned and refined over the course of their careers. In contrast, the off-season period for those early in their career was often viewed as an extra opportunity to train harder to improve physically and technically, typically due to 'expectation' to prove oneself and/or break through into the team. Typically, in these instances there was no deliberate strategy to detach or switch off, instead players discussed how they actively maintained 'engagement' with rugby-related cognitions. These early career off-season experiences were also characterised by overtraining due to a lack of structure and failure to seek advice on how to best manage the time period effectively. This was reported to often lead to reduced well-being via the experience of staleness and injury in the subsequent season.

### **Impact on player well-being**

The final facet of the framework described the impact of the first two themes (i.e., the ability to progress through the phases of the off-season period and influencing factors) upon subsequent mental and physical health and well-being (Table 3). This comprised two sub-themes: the impact on the perceived level of recovery and regeneration from the psychological load experienced in season; and the ability to connect with non-rugby environments and relationships. The level of recovery and regeneration from the in-season psychological load described the extent to which players perceived they had been afforded a 'mental break' from rugby demands, with the aim to feel recovered and regenerated for the new season, preventing cumulative (psychological) fatigue, and enhancing overall well-being. Influencing factors such as the level of demands (e.g., rugby/life) encountered in the off-season were suggested to further add to, or reduce, this cumulative psychological load experienced and impact upon well-being through changes in perceptions of recovery and regeneration.

The ability to connect with non-rugby environments and relationships referred to the impact of the quality of the off-season period upon opportunities to participate in non-rugby activities (e.g., other sports, business), spend time in environments other than rugby settings (e.g., holiday/vacation), and reconnect with family and friends (e.g., spend time with children; socialise with non-rugby friends). Collectively, these activities allowed players to nourish the non-rugby parts of their self/identity and bring balance to their lives away from work.

**Table 3: Sub-themes and example quotes describing the impact upon well-being of the off-season period**

Sub-themes (and influencing factors)	Example quote
Recovery from psychological load of the season	<p>“If there wasn’t an offseason break, I can guarantee there’d be a lot more retirements from rugby from mental health... without it ... I’d just, I’d hate the sport and I’d literally... I just don’t think I could handle it. You know, no matter what, you need time away from it and no matter what anyone says, having the odd week off here and there in the season does nothing because you’re still having to think about rugby, you’re still, like, constantly on it, whereas five weeks, or whatever, is long enough to be able to not have to think about it, to be able to go away and be able to actually do something.” P22</p>
Connect with non-rugby environments and relationships <ul style="list-style-type: none"> <li>- <i>Spending time in non-rugby environments</i></li> <li>- <i>Reconnecting with family and friends</i></li> <li>- <i>Participating in non-rugby activities and interests</i></li> </ul>	<p>“For me it is getting as far away from rugby as possible. You almost have like 52 weeks of work, 50 weeks of work, for me it’s breaking that routine... it’s waking up when you want, go to bed doing things that you don’t get the chance to do. For me it really is about just enjoying myself, you know, getting lost somewhere, going for like a day out doing these things because you can plan all the things you want in the season. P14</p> <p>“The main benefit is getting your head away from rugby for a little bit and being able to focus on your family, your friends, and spending a bit more time with them...” P31</p>

\*P denotes participant

Contextual factors, such as health status in the off-season (e.g., being injured and unable to take time away from the rugby environment due to needing daily treatment), were suggested to influence well-being by limiting opportunities to engage in connecting with non-rugby environments and relationships.

## **DISCUSSION**

This study is the first to investigate male professional rugby union players' psychological experiences of the off-season. The findings support the limited research into the psychology of rest in athletes, which suggest recovering psychologically depends in part on engagement in wakeful resting, of which specific resting experiences, such as not thinking about or cognitively detaching from one's sport, are fundamental [20].

### **Detachment requires self-regulation and others' support**

Our findings are consistent with a body of knowledge in organizational psychology that suggest the ability to cognitively detach during nonwork time (i.e., the off-season period) is a core process that can buffer the impact of work demands upon health and well-being [21]. Indeed, detachment may not happen by itself but may require self-regulatory effort (engaging in a preparatory 'decompression' phase or period). Like our study, this literature emphasises that organizations (clubs) as well as employees (players) need to take deliberate steps to facilitate detachment. These may include developing norms for detachment and work–nonwork segmentation (undertaking recovery/regeneration activities away from the club environment), organizing and prioritizing workload (sticking to prescribed training plans, recovery schedules), and offering supervisor (staff) and employee (athlete) education regarding recovery and regeneration, together with strategies that can be utilised to enhance the quality of this process. The literature also suggests employees should become more aware of their needs for detachment and develop and implement specific strategies to aid work detachment ability [22].

### **“At risk” groups**

Two sub-groups whose well-being may be 'at risk' over the off-season can be identified from our study. First, due to reduced time away from the rugby workplace due to treatment obligations, injured players may experience threats to mental well-being through feelings of isolation, anxiety, and reduced sense of achievement. Athletes typically report psychological distress following injury and throughout rehabilitation [23], with rugby players particularly susceptible to feelings of loss of control, competence, and affiliation to their sport, often leading to threats to athlete identity and subsequent identity crises [24]. The off-season period is a potential time point where conditions to reinforce these threats can be augmented due to insufficient time off compared with healthy teammates (lack of autonomy), and limited interaction with staff/players (affiliation) given most are away from the training ground.

Academy/younger players also appear 'at risk' in relation to their mental and physical well-being during the off-season from overtraining due to insufficient rest, often due to the perceived demands to successfully transition to the professional level [25]. These include the pressures to obtain a professional contract despite a lack of game time, non-selection, or non-sport demands, and resulted in the use of task-focused coping strategies in the off-season (i.e., train harder to increase physical performance characteristics). Players reflected that when they were younger, they were less likely to seek support/guidance on how to mentally recover and physically regenerate during the off-season. Many noted they had only learned how to utilise the off-season period effectively through trial and error, highlighting the importance of player education regarding self-regulatory effort to promote recovery and regeneration [22].

Promoting a psychologically safe environment [26] can further encourage help seeking among such a cohort.

### **Limitations**

Data collection for our study relied on single ‘one off’ interviews with players regarding their experiences of their most recent off-season to develop a preliminary conceptual framework describing potential relationships between off-season phases, factors influencing psychological recovery and physical regeneration, and the subsequent impact on well-being. Future research should seek to establish the cogency of this proposed conceptual framework developed by prospectively exploring players’ ability to cognitively detach in the off-season. Specifically, self-regulation strategies and well-being experiences should be tracked across the off-season period to assess changes qualitatively and quantitatively in markers associated with psychological recovery and physical regeneration. In addition, the sample obtained for our study was representative of northern hemisphere Tier 1 male professional rugby players. While the findings provide naturalistic generalizability (i.e., resonate with reader experiences) and analytical generalisation (concepts that are generalizable), together with transferability (extent to which findings transfer to other settings) in a qualitative context [27], future research should consider experiences and practices of other professional playing groups (e.g., southern hemisphere, Tier 2 nations, Pacifica). In particular, the structure of the female 15s professional season across the hemispheres means their off-season experiences are also likely to differ in comparison to their male counterparts. In-depth exploration of the sub-groups identified in the current study (long term or recently injured players and younger professionals) at risk of threats to well-being and welfare is also warranted. Lastly, given our study only sampled player perspectives regarding the off-season, other stakeholders’ (e.g., Medical Leads, Directors of Rugby) knowledge and understanding are important to fully characterise the off-season experience and design best practice guidelines for maximising recovery and regeneration to sustain player welfare. Enabling participants to interact with each other (e.g., via focus groups/online platforms) will allow for the integration of alternate roles (coaches, stakeholders, players’ partners) to open the possibility for generating more nuanced understanding.

### **CONCLUSION**

This study is the first to investigate male professional rugby union players’ experiences and perceptions of their mental and physical health and well-being across the off-season. It highlights the distinct phases undertaken to mentally recover and physically regenerate, and the need to consider education and support for those sub-groups whose well-being may potentially be at risk. Future research should seek to quantify how players attempt to cognitively detach from their sport over time and identify the factors which influence the relative success of this action. The utility of the proposed conceptual framework should be explored across briefer rest periods that occur within season to allow for best practice guidance to maximise the benefit of planned season breaks for player welfare.

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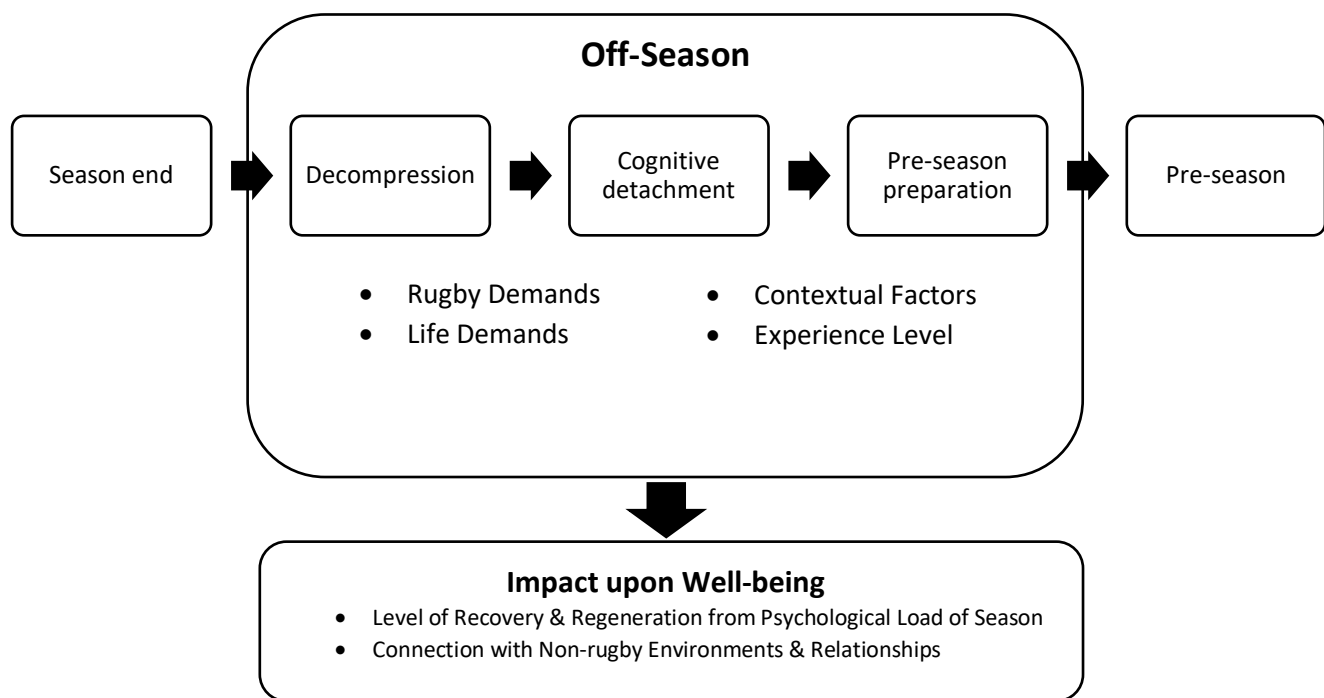


Figure 1: A conceptual framework to describe player perceptions of the phases of the off-season, the factors influencing psychological recovery and physical regeneration, and subsequent impact on well-being.

## **Interview Guide**

1. How long in terms of weeks was your most recent off-season?
2. In general, how would you describe your last off-season?
3. Please can you tell me about your physical wellbeing experiences in the most recent off-season period?
4. Generally, how well did you sleep during the off-season?
5. Generally, what were your energy levels like during the off-season?
6. How Sore/Stiff was your body during the off-season?
7. Tell me about your mental wellbeing experiences in the most recent off-season period?
8. How mentally demanding did you find the off-season period?
9. What demands were you experiencing related to rugby during the off-season period?
10. What demands were you experiencing away from rugby during the off-season period?
11. What influence did these demands have upon you?
12. How did these demands influence your physical and/ or mental wellbeing?
13. What physical and/or mental strategies did you use in the latest off-season period to recover/regenerate (e.g., weights, run, swim, cycle)?
14. How effective do you think these strategies were in helping you to physically recover/regenerate?
15. Overall, what influence do you feel these recovery strategies had upon your mental and physical wellbeing?
16. Based on the strategies you used, how physically/mentally ready did you feel to start pre-season?
17. Based on the strategies you used, how did you feel to start pre-season?
18. What are your thoughts on the impact (physical/mental) that the structure of the current off-season period, in the country where you play, has in relation to your welfare (e.g., benefits, importance of, off-season duration)