

**THE PSYCHOSOCIAL IMPACT OF CAREER-ENDING INJURIES IN ELITE
RUGBY UNION PLAYERS: A QUALITATIVE STUDY**

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ABSTRACT

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Retirement from sport can be a difficult transition for an athlete, particularly when participation in sport has formed a significant part of their identity and life as a whole. In the case of professional sport, athletes who retire because of a career-ending injury may have to deal with the unexpected double impact of losing their career and income and recovering from a serious injury, thus potentially making this exit from sport particularly problematic. This transition can be made all the more difficult since the athlete may be unprepared for it. Research on career-ending injuries among professional athletes, however, is limited. The purpose of this study was to document the lived experiences of former professional rugby union players who have suffered a career-ending sport injury. Three former professional Irish rugby union players took part in individual, semi-structured interviews. Following prolonged engagement and transcription, the data was analysed by following the guidelines for interpretative phenomenological analysis (Smith, Jarman & Osborn, 1999). Results indicated that, for the most part, the athletes perceived their career-ending injuries and subsequent transition out of rugby as a stressful, challenging and demanding process. The new post-injury reality faced by the athletes altered their perceptions of self, their psychological and physical wellbeing and their career and life plans. In particular, the severity of the injuries suffered by the athletes and the nature of the sport and organisation to which they were a part of, had a significant influence on their recovery and transition. Based on these findings, implications for athletes, sport organizations, sport medicine and allied health professionals working with injured athletes are presented.

Keywords: career transitions, career termination, career-ending injuries, rugby union.

1 INTRODUCTION

Rugby union is a contact sport with extreme intensity and physicality. Players regularly put their bodies and physical health on the line each time they tackle, carry, ruck, maul and scrum. It has been proposed that the physicality of rugby significantly increases the risk of injury (Garraway, Lee, Hutton, Russell, & McLeod, 2000). Since the dawn of the professional era, this risk has increased yet further due to the demands placed on elite players and their bodies. This is evident in the incidence rate of injury which doubled in the period from 1993 to 1997 (Garraway et al., 2000). These findings are mirrored by pre and post professional era injury incidence rates in Australia (Bathgate, Best, Craig, Jamieson & Wiley, 2002). More recent figures also illustrate the issue of injury frequency and severity. Brooks and colleagues (2005) reported a figure of 91 injuries/1000 player match hours while at the last rugby world cup this rate was only slightly lower at 89.1 injuries/1000 match hours (Fuller, Sheerin & Targett, 2012). The latest annual injury surveillance report commissioned by the Rugby Football Union of England (R.F.U., 2013) revealed that injury rates remained stable in the 2011/2012 season when compared to previous years, with a drop in the incidence rate of injury to 82/1,000 playing hours counterbalanced by an increase in the severity of injury leading to more time out from playing. From an Irish perspective, it is estimated that 30% of players forced to retire through injury are under thirty (I.R.U.P.A., 2013). Furthermore, it was found that 67% of players had had a concussion during their career while nearly one fifth (19%) of players had four or more concussions. Based on these figures, it is unsurprising that rugby players cite injuries as the biggest stressor they face (Nicholls et al., 2006). As a necessary action, the Irish Rugby Football Union (I.R.F.U.) set up in 1978 a charitable trust to help those who suffered such severe injuries while playing that their physical health and quality of life seriously deteriorated.

If rugby players face a large potential injury risk then they require strategies to be able to cope and recover (provided the injury is not so severe). The experience of coping with injuries may be influenced by the culture of rugby in which the athletes find themselves in and identify with. Howe (2001) posits that certain values for injury management and treatment exist in different sports cultures and players can come to internalise these values. This could explain why athletes tolerate their injuries and don't speak up and seek appropriate treatment when needed. Even still, the physical treatment of injury is accepted as part of the sports culture much more so than the use of

psychological services as players are expected to be able to handle anything (Arvinen-Barrow, Massey & Hemmings, in press). This phenomenon may be particularly true in rugby due to its physical and aggressive nature. In fact, injuries may be considered a part of the job for male rugby players with those who don't play through the pain barrier being regarded as soft (Young, White & Mcteer, 1994; Arvinen-Barrow, Massey & Hemmings, in press). It could be argued that a "culture of risk" exists whereby athletes are encouraged to accept risk, pain and injury as part of the game (Frey, 1991) in order to gain a type of cultural capital (Light & Kirk, 2000). For example, in a study by Nixon (1994), two of the three coaches interviewed advocated playing while hurt and taking risks as a way for the player to prove their commitment. Players can put pressure on themselves to return to action prematurely because they need to be playing (Crossman, 1997). This type of pressure to perform and put the body under extreme stress may result in a greater chance of injury and potentially even more severe injuries. Indeed, as an example, a survey carried out on behalf of the Irish Rugby Union Players Association (I.R.U.P.A, 2013) revealed that 46% of players questioned had tried to hide or play down a concussion in order to continue playing.

Due to the significant number of athletes incurring serious and potential career-ending injuries in rugby union, research attention was warranted in order to attempt to uncover valuable information which may aid in the understanding the injury recovery process and of transition out of this professional sport for all involved parties. Thus, the present study was set out to investigate what it means for a professional rugby union athlete to suffer a career-ending injury. Past research on this process has focused more on the relationship and interaction between the athlete's individual and situational influences on their response to injury rather than investigating the personal meaning each athlete ascribes to their injury process (Andersen, White & McKay, 2004; Mainwaring, 1999). By adopting a phenomenological approach, the athletes were able to share their personal story and journey.

LITERATURE REVIEW

1.1 Career termination and transition: Examining the conceptual model of adaptation to retirement among athletes

A transition has been defined as “an event or non-event which results in a change in assumptions about oneself and the world and thus requires a corresponding change in one’s behaviour and relationships” (Schlossberg, 1981, p.5). More recently, a transition has been described as a process and not just a one off event (Wylleman, Lavallee, & Alfermann, 1999). Specific to the sport career, Coakley (2006, p.2) describes this transition as “a complex, multidimensional process”. Depending on the nature of their athletic career, athletes may experience a number of career transitions. For example, athletes can transition from junior to senior sport, to a new club or team or out of competitive sport action. Transitions may be normative in that they are predictable, expected and can be planned for or non-normative whereby an uncontrollable and unexpected event occurs (Schlossberg, 1984). Non-normative transitions, such as a career-ending injury, typically result in a more difficult or stressful transition since it is unlikely the athlete had the opportunity to prepare or plan methods of coping with the transition (Stambulova, Alfermann, Statler, & Côté, 2009). Whether they are foreseen or not, transitions elicit many demands that an athlete must cope with in order to adapt successfully (Alfermann & Stambulova, 2007). In the current study, the final career transition an actively competing athlete can experience, that of career termination, is examined.

Sports career termination occurs when an athlete discontinues athletic involvement at their current level of practice and competition (Kleiber & Brock, 1992). The four main causes of athletic career termination as put forward by Taylor and Ogilvie (1994, 2001a) are age, de-selection, injury and personal choice. These triggers of career termination form the first stage of five stages of the conceptual model of adaptation to retirement among athletes (Taylor et al., 2006, Taylor & Ogilvie, 1994:see appendix B), hereafter referred to as the conceptual model. The cause of athletic termination, as determined in stage one of the conceptual model can have a major impact on the success of the transition. Thus far, the literature has found that the voluntariness with which an athlete leaves their sport can have a major impact on the quality of the transition experienced (Alfermann, Stambulova & Zemaityte, 2004).

Involuntary retirement due to a career-ending injury, for example, is more difficult to deal with due to its unexpected nature (Wylleman, et al., 1999). Ambiguity in this decision may also cause stress and a struggle to come to terms with the final decision (Kerr & Dacyshyn, 2000; Stoltenburg, Kamphoff & Bremer, 2011). Athletes who freely choose to end their career, however, have been shown to experience a smoother, less distressing adaptation (Alfermann, 2000). This ability or opportunity to choose one's own fate facilitates the post-career adaptation process through more effective emotional and coping strategies and greater life satisfaction in the post-career (Webb, Nasco, Riley & Headrick, 1998).

The second stage of the conceptual model examines the factors that can influence the adaptation process such as the athlete's self-concept, self-identity and other personal, environmental and social variables. Many athletes, especially at elite levels, have high athletic identity since their lives, relationships and goals revolve around their sport and career (Lockhart, 2010). Athletes with this high athletic or even foreclosed athletic identity, experience a more difficult transition when terminating their career since they may have a reluctance to accept the end of their career and a susceptibility to depressive symptoms (Alfermann et al., 2004), severe psychological difficulties (Erpic, Wylleman, & Zupancic, 2004) and experience greater degrees of social and emotional adjustment (Grove, Lavalley & Gordon, 1997). Athletes who pursue almost exclusively their sport career while potentially neglecting other important areas of life, such as educational and professional development or having a social network outside of sport, run the risk of experiencing a crisis transition (Baillie & Danish, 1992). Therefore, it is important that athletes engage in some sort of vocational and/or life skills development complimentary to their sport career (Park, Lavallee & Tod, 2013). Through fostering interests in other activities the athlete can develop a new identity outside of sports. This can be crucial to the adaptation process as in order to adjust successfully to post sport life, a shift in the athlete's identity must occur, from that of an athlete, to finding a new, satisfactory sense of self (Kerr & Dacyshyn, 2000).

Other important factors which may influence the athlete's adjustment include the financial status of the athlete, life changes brought on by the transition and sport career achievement (Park, Lavallee & Tod, 2013). An athlete's experience of career success and satisfaction may impact on their self-identity and self-esteem and subsequently on the quality of their transition (Chow, 2001). Indeed, it has been shown

that athletes who have achieved their goals have been found to adjust better and have higher levels of satisfaction than those who did not (Park, Lavelle & Tod, 2013; Sinclair & Orlick, 1993). Upon retirement, athletes may also have to deal with changes in how their daily lives are organised. Athletes can feel anxious about dealing with new environments, responsibilities and people and about losing control of their lives (Kerr & Dacyshyn, 2000). Finally, financial planning has also been shown to influence athletes' abilities to adjust to the post sport life (Coakley, 2006). Athletes' financial status can be linked with the quality of the transition as those athletes who are financially unprepared for the transition or experiencing financial problems can encounter more difficulties in their transition and have limited opportunities in their post sport life (Lotysz & Short, 2004; Menkenhorst & Van Den Berg, 1997).

In stage three of the conceptual model transition resources available to the athlete are scrutinized. These resources may include different types of support and/or engagement in post-career planning by the athlete. Pre-retirement planning has been found to contribute to a healthier transition (Wylleman et al., 1999). Athletes who plan for life after sports adapt faster, feel more positive and satisfied about their life, and experience a smoother transition into the job market and post-career life overall (Alfermann et al., 2004). Planning of the post-career also aids the athlete in developing and adopting a new, positive identity (Alfermann & Stambulova, 2003). In spite of the benefits associated with post-career planning, there appears to be reluctance on the part of athletes and those involved in the athlete's life to recognize its importance and actively engage in it (Blann & Zaichkowsky, 1989). In a study by Svoboda and Vanek (1982) 71% of retired athletes had never planned for their retirement while, more recently, Alfermann, Stambulova and Zemaityte (2004) reported that only 40% of former athletes had planned for life after sport. Going back to the cause of career termination in stage one, it could be argued that athletes who have decided freely to end their career would then be more active in searching out new possibilities for their future career prospects, while those whose career ended suddenly or unexpectedly (e.g through injury) had not thought about or taken this opportunity, particularly if their career was ended in its infancy.

In addition to pre-retirement planning, social support is another coping resource often utilised by athletes (Stoltenburg, Kamphoff, & Bremer, 2011). In fact, seeking and gaining psychosocial support is the most frequently reported coping strategy used by

retired athletes (Park, Lavalee & Tod, 2013). Injured athletes have reported several different sources of social support. Commonly noted sources include teammates, coaches, family, friends, physiotherapists and psychologists (Rees, 2007; Arvinen-Barrow, 2013). It can also be of benefit to injured athletes to have the support of teammates, and other athletes going through a similar process including injury support groups (Clement, Shannon, & Connole, 2011; Yang, Peek-Asa, Lowe, Heiden, & Foster, 2010). Research indicates that the primary source of post-career support comes from friends and family outside of the sport circle and not from coaches or the sport system (Sinclair & Orlick, 1993; Taylor & Ogilvie, 2001a). While organizational support is usually the highest when athletes are at the peak of their career, it can decrease dramatically when athletes retire (Alfermann & Stambulova, 2007). Athletes may also find it difficult to adjust to the loss of the social networks they had access to in their sport (Kane, 1991). To facilitate a successful transition, it is therefore important that the athlete has access to a social support network outside of his/her sport (Bußmann & Alfermann, 1994) so that, linking back to stage two, there is another avenue to search for a new identity and gain self-esteem from.

Stage four of the conceptual model examines the quality or success of the transition in how well the athlete is adjusting to the post career. The interaction of the variables listed in stages one through three is a strong indicator of how the athlete will cope and adjust. Previous research on career termination viewed it as a critical, distressing phenomenon which had the potential to cause major problems for the adapting athlete (Ogilvie & Howe, 1986). This could be due to the fact that it can alter or even break an established, comfortable fit between the person and their environment (Filip, 1995). As discussed, the athlete may be confronted by threats to an established personal and social identity which can result in a sense of loss (Wippert, 2002) and a loss of perceived control (Alfermann, 2000; Taylor & Ogilvie, 1994, 2001). Indeed, this alteration can influence the development of traumatic symptoms and leave the athlete worried about an uncertain, unfamiliar future (Ehlers & Clark, 2000). Recently, however, in line with the understanding of career transition as a process, career termination has shed its exclusively negative connotations and the potential for positive change is considered (Perna, Ahlgren, & Zaichkowsky, 1999). While initially an athlete may experience a sense of loss, this loss can then be transformed into an opportunity for personal growth and successful adaptation (Kerr & Dacyshyn, 2000). Indeed, an athlete

may feel relief from external pressures following career termination (Wiese-Bjornstal, Smith, Shaffer & Morrey, 1998).

The updated view of career termination as a “two sided coin” reflects the fact that there may be significant inter-individual differences in how an athlete interprets and copes with the end of their career. It is estimated that approximately 80% or every 4/5 athletes record a relatively healthy transition while up to 20% struggle in adapting to their post career life (Lavallee, Nesti, Borkoles, Cockerill, & Edge, 2000). In their systematic review of studies on career termination Park, Lavalee and Tod (2013) found that around 16% of athletes experience transition difficulties or problems. In a study by Wippert and Wippert (2008) those athletes who experienced an unhealthy transition were found to have more disturbed sleep patterns, alcohol use, negative appraisals, and engaged more in emotional avoidance than those who had a healthier transition. From an Irish rugby standpoint, a recent survey carried out on behalf of the Irish Rugby Union Players Association (I.R.U.P.A, 2013) revealed that almost one in three players reported that they felt little control over their lives in the two years post retirement with only 26% satisfied with their new career.

A key factor in examining the quality of the transition is the time elapsed since the beginning of the transition. The duration of transition out of sport can vary but studies have suggested that it may last between 6 to 18 months (Brandao, Winterstein, Pinheiro, Agresta, Akel & Martini, 2001; Douglas & Carless, 2009; Sinclair & Orlick, 1993; Stambulova, 1997). Athletes have indeed been found to report fewer transitional and adjustment difficulties and reduced self-perceived stress levels as time passes (Lally, 2007; Wippert & Wippert, 2008). For those athletes who do experience continued distress, there is generally a need for some form of psychological assistance (Alfermann, 2000). This assistance or intervention is carried out if necessary, to facilitate the transition process and/or to combat an unsuccessful transition and forms the fifth and final stage of the conceptual model of adaptation to retirement.

1.2 Psychological responses to injury: The integrated model of response to sport injury and rehabilitation

As noted in the previous section, injury is one of the most common causal factors for career termination (Taylor & Ogilvie, 2001a). Tucker (1990) suggests that competitive athletes are well equipped both mentally and physically to face stressful situations, such as injury, but athletes can differ greatly in their capacity to cope with and recover. Such differences may well be explained by the influence and interaction of factors specific to individual athlete, their situation and environment.

The integrated model of response to sport injury (hereafter referred to as the integrated model: see appendix A) was proposed by Wiese-Bjornstal, Smith, Shaffer and Morrey (1998) as a means of accounting for these unique personal and situational moderating factors that interact with and impact upon the athlete's cognitive appraisal of the injury, their emotional and behavioural responses to the injury and ultimately the recovery or non-recovery, both physically and psychologically, from the injury. This predominant flow of influence and causation is labeled as the model's dynamic core. Influential personal factors on the athlete's injury experience may include the nature of the athlete's sporting career, the severity of the injury and the athlete's history of injury. An injured athlete's injury history has a significant impact on how they adjust psychologically to an injury (Gordon, Milios & Grove, 1991). Those suffering a serious injury for the first time have been found to be more at risk of psychological distress than those who have had multiple injuries (Johnson, 1996). The severity of the injury may also have a significant impact on the athlete's experience and quality of transition. A serious injury may elicit psychological stressors and a fear of re-injury, thereby rendering athletes unable or unwilling to return to playing action (Chimielewski, Jones, Day, Tillman, Lentz & George, 2008). Taylor and Ogilvie (2006) report that a significant number of elite athletes have injuries so severe as to be debilitating and can majorly affect quality of life thereafter. They posit that this trauma and forced adaptation can produce negative emotional and psychological reactions in athletes and limit their career choices post athletic life. Indeed, those athletes who suffer serious injury and related health problems require more time to adjust and may experience increased anxiety and difficulty in managing the pain of their injury. (Gilmore, 2008; Werthner & Orlick, 1986) The loss of control over their bodies can also contribute to a crisis of identity for the athlete (Sparkes, 1998).

Other individual factors which can impact on the injury recovery process include athletes' personalities, self-concept and identity, as discussed in the previous section, and psychological and coping skills. A coping response used to deal with threatening events, such as injury, involves affective, behavioural and cognitive efforts to manage certain external and internal stressors (Lazarus & Folkman, 1984). Coping strategies have been classified into emotion-focused, problem-focused and avoidance-oriented (Kowalski and Crocker, 2001; Lazarus & Folkman, 1984). Professional rugby union players have been found to use problem focused coping strategies more than emotion focused or avoidance coping ones when dealing with the stressors they face like injury (Nicholls, Holt, Polman & Bloomfield, 2006). Furthermore, when comparing voluntary career termination and forced retirement, through injury for example, it has been found that forced retirees were more likely to use very passive coping strategies, and they would often seek social support, while more active methods were used by athletes that retired by choice (Stambulova et al, 2007).

In addition to the personal factors described above, situational factors outside of the athlete's control can also impact the injury and recovery process including the athlete's adherence to rehabilitation. The nature of the athlete's sport, career and sport organisation as well as other social and environmental factors are listed as situational influences (Wiese-Bjornstal et al., 1998). Social factors encapsulate the availability of support and influences of significant parties involved in the recovery process such as sports team personnel, teammates, coaches, friends and family. Environmental factors are concerned with access to and the conditions of rehabilitation. As outlined, the athlete's unique combination and interaction of these situational and personal factors may influence how they appraise their injury.

According to (Lazarus, 1991) an athlete can have both primary and secondary cognitive appraisals. Primary cognitive appraisals involve a type of cost-benefit analysis on the part of the athlete to assess the potential consequences of the event i.e. the injury. Secondary cognitive appraisals examine what coping strategies and resources the athlete has to handle the consequences of the injury. These stages of appraisal are proposed to influence the perceived stress of the event, the emotional response and subsequently the behavioural reactions of the athlete (Lazarus, 1991; Wiese-Bjornstal et al., 1998). This relationship is not necessarily unidirectional. Athlete's appraisals can also directly influence their behavioural responses without an emotional response, for example an

athlete who perceives their injury as manageable may then become more committed to rehabilitation without any emotional response (Walker, Thatcher & Lavallee, 2006). Inversely, behavioural responses can also cause a cognitive reappraisal which in turn can affect the athlete's emotional responses. For example, if the same athlete's adheres to their rehabilitation but does not make progress in recovery, they may then appraise their injury less manageable/ more stressful and may then experience a shift in mood to a more negative state. As is evidenced, the injured athlete's emotional responses are influenced by their cognitive appraisals, and the circumstances of their injury recovery and rehabilitation. Therefore, they are not stable but susceptible to change. Indeed, it has been found that injured athletes can fluctuate on an emotional continuum with the potential for emotional highs and lows during rehabilitation (Wiese & Weiss, 1987). The most common emotions reported by athletes, however, are negative including frustration, anger, tension and boredom (Pearson & Jones, 1992) as athletes confront a range of psychosocial challenges (Tracy, 2003) These psychosocial challenges may differ depending on the stage the injured athlete is in, be it in the initial reactions to the injury, the reactions to the rehabilitation or the reaction of returning to sport (Kamphoff, Thomae, and Hamson-Utley, 2013)

The injured athlete's behaviour is thought to be predominantly influenced by their emotional responses as well as their cognitive appraisals of their situation. Behavioural responses to injury include the use of psychological skills, the use of support and social networks, risk taking and adherence to rehabilitation (Wiese-Bjornstal et al., 1988). The athlete's adherence to rehabilitation may be influenced by the athlete's belief in the effectiveness of the treatment, the pain and mobility of the injury and by the impact of any required surgery (Walker, Thatcher & Lavallee, 2006). In summary, Wiese-Bjornstal, Smith and LaMott (1995) report that athletes increase the likelihood of recovery from injury if they adhere to their rehabilitation and are motivated to reach their goals, use psychological coping strategies and support and reduce risk taking behaviours.

1.3 Career ending injuries

With a career-ending injury, an athlete not only has to cope with the impending retirement adaptations, but also must deal with the psycho-social factors related to the injury itself, as well as facing with a range of tertiary contributions (Taylor et al., 2006, Taylor & Ogilvie, 1994). Unsurprisingly, therefore, this particular undesired avenue of exit from sport has been found to have a profound and often detrimental impact on the athlete and their adjustment to the post career (Wylleman et al., 2004). In fact, a career ended by injury results in a more difficult adaptation to the post career than any other cause of career termination (Mayer, 1995). This is particularly true if it causes premature dropout from sport (Bußmann & Alfermann, 1994). Research has shown that athletes can experience a variety of almost exclusively negative emotions when reacting to the reality of a career-ending injury as the more severe the injury is the greater the chance for a traumatic appraisal and response (Smith et al. 1990). Such emotions include frustration, anger, fear, anxiety, grief, identity loss and crisis, loss of confidence and depression (Alfermann et al., 2004; Lally, 2007; Pearson & Petitpas, 1990).

Despite the multitude of research investigating the experiences of career transitions and injuries, studies examining the psychosocial impact of career-ending injuries are surprisingly limited, particular in regard to the samples utilised. Studies that have examined directly the impact of career-ending injuries on athletes' psychosocial adjustment and well-being, have utilised restricted samples neglecting elite, professional and elite, non-professional athletes. Brock & Kleiber (1994) conducted a qualitative study with former college athletes whose careers were ended due to injury. The results from their illness narratives indicated that the athletes felt confused, angry, guilty and isolated, while some of them felt a sense of relief. Moreover, the retirement due to injury had also had troubled effects on their identity and self-esteem after the injury. These findings are echoed in studies by Kerr & Dacyshyn (2000) and Barry (2008) on the retirement experiences of former gymnasts who suffered a career-ending injury. The athletes felt frustrated and angry, and felt alone in the retirement process. In addition, they felt they had experienced a loss, and as such, experienced feelings of depression or sadness.

More recently Stoltenburg, Kamphoff & Bremer (2011) also used a qualitative approach when investigating psychosocial effects of career-ending injuries among

former collegiate athletes. Their results yielded five main themes that were seen as factors influencing the athletes' career transition from sport due to injury: the consequences of injury, availability (or lack of) positive social support, the impact of injury on athletic identity, the nature of injury, and the athletes engagement in pre-retirement planning. The athletes studied experienced a wide range of stressors and positive and negative emotions. Their ability to choose whether or not they ended their career, based on the severity of their injury, their level of engagement in pre-retirement planning and their use of social support were the most important influencing factors on their career-ending injury experience. The findings also provided support for each of the stages of conceptual model of adaptation to retirement (Taylor & Ogilvie, 1994; Taylor, Ogilvie & Lavallee, 2006).

The aforementioned study by Stoltenburg, Kamphoff & Bremer (2013) along with Coakley's (2006) study are the only known research works to examine career-ending injuries in light of the conceptual model. There is also a lack of research investigating the phenomenon of a career-ending injury through factors contained within the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1988). Furthermore, as yet, no study has attempted to fully examine the experience of a career-ending injury through the combined frameworks of the conceptual model and the integrated model. Logically, these two models can complement each other in understanding the experience of a career-ending injury by covering the range of aspects potentially relevant to both psychological reactions to injury and the process of career transition out of professional sport. To this end, the present study draws from both models in an attempt to fully understand the experience of a career-ending injury.

2 PURPOSE OF THE STUDY

The purpose of this study was to document the lived, personal experiences of former elite, professional rugby union players who have experienced a career-ending sport injury. Specifically, the study examined the meaning each athlete ascribed to their injury recovery and sport transition process.

3 METHODS

3.1 Participants

The study used a purposive criterion sampling strategy. A total of three male, former professional Irish rugby union players were interviewed for this study. Each player had played at the top level of national and international competition with an average career length of six years.

3.2 Materials

An interview schedule was developed (see Appendix) based on the conceptual model of adaptation to career transition (Taylor & Ogilvie, 1994), and the integrated model of response to sport injury (Wiese-Bjornstal et. al, 1998) to ensure participants would have the opportunity to discuss range of aspects potentially relevant to both psychological reactions to injury and the process of career transition out of professional sport. Questions were divided into three sections. The first section covered the injury experience. A sample question was: “could you describe how your injury happened”? The next section addressed the athlete’s reactions to injury, for example, “how did you feel after the injury”? The final section was set out to examine the overall impact of the injury where participants were asked: “can you describe how the injury impacted your life”? A pilot study was first carried out to assess the suitability of the interview guide and to allow the researchers to gain valuable experience in conducting an interview about a potentially sensitive and emotional issue. Following the pilot study, it was decided that the existing interview schedule was sufficient for the purpose of the research.

In addition to the interview questions, a brief demographic questionnaire (e.g. age, injury details) and debriefing section were included in the guide. The debriefing section was added due to the emotional sensitivity of the topic under discussion. The participants were asked these follow-up questions in order to assess the potential impact of the interview experience.

3.3 Procedures

Access to the Irish rugby players sample for the main study was gained through personal contacts as well as through the cooperation of the Irish Rugby Union Players Association (I.R.U.P.A) who put forward potential participants on the researcher’s

behalf. Participants were contacted individually and those three athletes who agreed to take part were scheduled a mutually convenient time for the interview. Once on location, participants were further informed of the nature of the study. At this point the participants were also asked to complete a short, demographic questionnaire, as described above. Upon the participants giving their written consent, one on one interviews took place at various locations deemed suitable, and agreed upon by both the researcher and the participants. The duration of each interview was one to two hours with an average interview length of 1 hour and 15 minutes. All interviews were audiotaped.

3.4 Data analysis

Interviews were transcribed verbatim and pseudonyms (Brandon, Charlie and Damien) were ascribed to the participants to ensure anonymity. Following prolonged engagement and familiarisation with the transcripts, the data was then analyzed within the guidelines and boundaries of Interpretative Phenomenological Analysis (see Smith et al., 1999 for a detailed description). During the course of the analysis, initial impressions of meaning were noted in the left margin of the page which were then, after further examination, categorised into subordinate themes in the right margin. These themes were then clustered together, where appropriate, as part of an all-encompassing superordinate theme. Finally, the transcripts and their emerging themes were peer-reviewed and triangulated, and the final themes were mutually agreed upon. This was done to ensure inter-rater reliability and trustworthiness. In addition, the participants were given an opportunity to review and comment on the main themes contained within their personal interview transcripts. Only one of the three participants took this chance and was satisfied with what was presented.

3.5 Ethical considerations

The current study was part of a broader cross-cultural study on career-ending injuries in elite sport. As such the institutional review board approval was first gained from the University of Wisconsin-Milwaukee by the lead researcher followed by an approval from the University of Jyväskylä's ethics committee.

4 RESULTS

Drawing from the IPA analyses, the experience of a career-ending injury for the participants in this study was for the most part a distressing one. In particular, the injury occurrence elicited a multitude of different stressors and demands which interacted during the injury recovery and transition process. As a result of the injury, the participants were forced to adjust to a new, uncertain reality. This appeared to have a cyclical negative, draining effect on the participants both physically and mentally, and was also influenced by a number of specific professional rugby related factors. Moreover, all of the above had an effect on and were influenced by the participants' cognitive appraisal of their injury situation and the subsequent emotional and behavioural responses. In an attempt to cope with the stressors and demands, the participants appeared to use a range of strategies and resources to varying extent and effectiveness. Overall, the nature of the post-injury career transition was dependant on the interactional balance of these coping mechanisms and other factors related to the demands of the injury and the career transition that followed. The complete list of themes which emerged from the participants' accounts is presented in table 1 below.

Table 1 List of emergent super ordinate and related sub themes

Super ordinate themes	Sub Themes
Individual Factors	-Career experiences and perspectives -Injury history, characteristics and lasting consequences
Psychological reactions to the career-ending injury	-Use of profanities -Injury appraised as a stressor -Experience of injury -Sense of loss -On reflection: sense of relief
Emotional reactions	
The reality of professional rugby union	-The business of professional rugby union -If rugby won't pay the bills, who will? -Pressure to play and perform
Coping strategies and resources	-Self -protection -Regaining control -Perception of support
Ability to move on	-Life changes -Pre-retirement planning -Dealing with the past and moving on

Individual factors

The experience of a career-ending injury was significantly influenced by personal factors specific to each individual participant. The nature of the participants' playing careers in terms of their satisfaction with what they achieved and their injury history, as well as the characteristics and consequences of the injury that ended their involvement in rugby, distinctly influenced their appraisal of and reactions to the injury and subsequent transition out of sport. The following two factors account for the sporting, professional and injury background of each participant.

Career experiences and perspectives

The participants in this study shared a passion for sport and rugby in particular but none of them had explicitly set their main goal to be a professional rugby union player. Rather, they had simply played their sport, and through motivation and skill, progressed well enough to stand out as players and seize the opportunities that came their way. All three participants had played professional club rugby, and represented their country at a top international level of rugby. However, they each had very contrasting experiences on and off the playing field in terms of personal and club success.

One of the participants, Damien, who was a regular starter for his team, felt "fortunate" in the fact that he had never played on a team that had not been successful and had the opportunity to play in two major tournament finals. Brandon, another participant who was a regular starter to his team when physically fit was also involved with successful teams but felt that he somewhat missed out on crucial games due to recurrent injury. He described his career as having "more lows than highs". He had some regrets about how his career went but was satisfied that personally, he had "never actually failed".

The other participants in the current study, Charlie, also had different experiences. He was a self-dubbed "fringe player" in that he was not a regular starter and was left frustrated at an almost unworkable relationship with his coach. The coach, he felt, did not recognise his contribution and failed to provide him with appropriate opportunities to prove his potential. In fact, Charlie noted that he never played two consecutive games throughout his professional club career. He lacked any certainty of a

long term rugby career by signing year on year contracts and expressed clear concerns about losing his contract following his injury. He was not content to fall into the “trap” of getting paid to sit on the bench. Despite this, Charlie was also content with his personal effort and contribution “I wouldn’t have any regrets...I gave it my all” and while he felt that selection wise he was passed over, he did not dwell on that but rather acknowledged “that’s how it goes.”

Injury history, characteristics and lasting consequences

Perhaps unsurprisingly, the participants in the current study were found to have had multiple, previous experiences of injuries ranging in duration of recovery and degree of severity. One of the participants, Brandon, had a career constantly stalled by lower extremity injuries. He reported having multiple surgeries and treatments in an attempt to regain his mobility. Charlie, who had the shortest career of the participants in this study, did not appear to have had as many injuries as Brandon but suffered his career-ending injury while already dealing with another serious long term injury. He made the decision to have separate surgeries for both injuries in a relatively short period of time which, according to him, “in hindsight was a bad move.” Of all the participants in this study, Damien experienced the most severe career-ending injury as the injury had a serious impact on his mobility and threatened to leave him permanently partially disabled. He, like the others, needed to have surgery to repair the damage caused but “it wasn’t as straightforward a surgery as they thought, it was worse”. It was only during the surgery that the true extent of the injury was revealed. Despite their history of injuries and the severity of their career-ending injuries, the participants reported that they were never explicitly told that they could never play rugby again only that it could lead to further health complications if they did so.

Evidently, the severity of the career-ending injuries experienced by the participants meant that their physical health had been put under intense strain. Along with the immediate pain and discomfort of injury, the participants also had to cope with continuous rehabilitation and the future implications of their injuries on their quality of life. At the time of suffering the injury and in the immediate aftermath, all of the participants discussed how the physical pain of the injury was overriding any other thoughts and feelings. They reported that they were “ruined”, “in agony” and “in bits”. The pain of injury was, however, not temporary but continues to have long lasting

consequences. As mentioned, all three participants had to have surgery to repair the damage caused by the injury. Unfortunately, they still reported that their injury and rehabilitation was an “on-going problem”, which was “draining”, with pain and injury management a necessary strategy in their daily lives. It was also evident that the injuries also had long-term continuous effects on their physical activity levels and capabilities. Brandon stated that “physically it stops me doing a lot ya know. I can feel it every day like”, while Charlie commented “I can’t even go for a jog like..ya know, things like that and even just to be fit ya know.” Lastly, Damien reported that he couldn’t even walk without feeling pain.

Psychological reactions to the career-ending injury

For all of the participants in this study, the experience of a career-ending injury was stressful both psychologically and physically. How the participants thought, felt and reacted to their situation was influenced and underpinned by the different individual factors as well as situational factors such as the severity of the injury, the practical issues of transition and factors specific to rugby, to be discussed later. Five sub themes were identified to explain the different aspects of athletes’ cognitive and emotional reactions: 1) use of profanities, 2) injury appraised as a stressor, 3) experience of injury, 4) sense of loss and 5) on reflection: sense of relief.

Use of profanities

One of the themes that emerged from the transcripts was the way in which the participants expressed themselves when describing their career-ending injury experiences. All participants used a range of profanities repetitively throughout the interview when describing their injuries, professional rugby career, and the experience of career transition. Granted that use of profanities in language can be a reflection of the overall culture of professional rugby, or wider Irish societal culture, it appeared that this type of language was particularly evident and consistent when participants spoke of their frustration and anger with their injury, rehabilitation and recovery, and the factors hindering the process. It appeared that use of profanities served to emphasise the participants’ feelings as well as the impact of the situation:

That was **** torture man. It was the biggest mental **** that I ever had, cus it’s the same **** every day. People ya know, you are just standing there

watching and feel **** useless doing these **** things with a band or something (Brandon).

(Note: from this point on in the results, all profanities will be marked with **** symbol)

Injury appraised as a stressor

The physical strain of living with a serious injury, suffering through pain and going through continuous rehabilitation was accompanied by the psychological strain of coping with this new reality and associated worries about the future. Damien reported that he used to “wake up just with sweats... just with nightmares, pure I knew it was just the stress of it, of the injury like.” Brandon talked about the psychological affect the experience had on him, “the mental **** of being injured all the time.” while Charlie commented that “it’s frustrating and it weighs on your mind definitely whether it’s unconsciously or consciously when you’re feeling painful but it’s draining alright.”

The process of dealing with the consequences of the injury and the realisation of the injury severity appeared to happen in stages. The participants reported that this realisation happened gradually, and was influenced by the amount of information the athletes received about the injury and the time they spent rehabilitating without successful recovery. In essence, the more information the participants received and the more time that, the more evident the possibility of the injury being a career-ending one became. For Damien, the reality became apparent while being abroad to see a consultant about his situation:

I was planning on going doing all the sightseeing stuff and then this **** was telling me I needed that (a hip replacement) and you just kind of it’s almost like being told you have cancer because all I did was I blacked out and he was talking away...

Damien’s initial reaction to the news was that of avoidance and denial:

I didn’t want to talk about it, not to the lads because when I suppose when you do start to verbalise that for me, I suppose maybe it was, was the reality ya know, I wasn’t improving and retirement was a reality

Other participants also explained how the reality of the severity had a significant impact. Charlie stated that that news of his injury and treatment options “hit him hard”

and Brandon explained how he was “a little bit horrified” when he found out how serious his injury was. The realisation of the seriousness of their injuries raised further concerns for the participants extended beyond the immediacy of their sporting career and they became more concerned about the impact of injury for their current and long term physical and psychological health. For all three, the concerns over the reality of their long term health and quality of life prospects weighed on their minds: “twenty years down the line I still want to be fairly active and I do, that’s on my mind what kind of shape I will be in (Brandon).” In a similar way Damien explained:

What you expect as a player no longer once that goes out the window that hits you, you realise that but then what’s scary is how badly, you never think that the injury will actually affect your day to day life outside of it, how can I, will I be able to run again or can I just walk like walk down the street?

Charlie also experienced this shift in identity and perspective on his health:

Last year has been tough like things like getting out of bed has been harder...I can’t train as much and gives me pain on and off and my head is lopsided down like that so I get headaches so it’s tough from that point of view alright like you never see yourself in that position when you are playing.

Experience of Injury

The participants’ appraisals of the career-ending injuries were influenced by their past experiences and reactions to injury. As discussed earlier, each of the participants had multiple, previous injuries ranging in severity and duration. The previous injury experiences of all three participants gave them expectations about the injury and recovery process, as well as mechanisms on how to handle injuries. Brandon, for example, did not think that he would suffer a career-ending injury despite his history because he “got the worst one at 23 and came back so well from that...so if that’s not gonna stop me then am nothing will basically.” Bouncing back from such a serious injury and overcoming so many obstacles influenced Brandon’s experience of subsequent injuries in that he thought he could recover from anything. He still thought that even after the career-ending injury, that there was a possibility that he could still return and play. He also noted the self-improvement element of injuries. For him the

experience of injury was not exclusively negative but rather “character building”, “part of the job” and was something that “makes you stronger”.

In a similar way, Damien also had bounced back from a serious injury where, after first having doubts about his readiness, he performed well in what he described as “a massive game psychologically.” He outlined the process of getting through a stress inducing injury in that “you have setbacks along the way ya know, normal injury process. You have setbacks along the way and then you just keep ploughing, keep ploughing and then you'll push through.”

Charlie, like the other two participants, was trying to keep going and keep playing despite having struggled with injuries the past few seasons: “it was kind of the same in a way like. I was doing my rehab and doing as much extra stuff as I could to get back playing.” He also referred to the culture and identity of a rugby player in dealing with injuries:

When you're playing rugby and you're training full time and things like that, there's a certain amount of kind of thinking you're invincible like or you think that kind of way and you don't worry as much about the injuries as you should.

For Charlie and Brandon, a choice had to be made whether to retire and to stop playing rugby completely or to try to get back and face the potential consequences to their physical health and quality of life in the future. Charlie explains, “If I had continued playing, I maybe would have had to get one (a hip replacement) so we'll see, it doesn't mean I won't have but I'm in a better scenario now than if I kept playing.” As discussed previously, Brandon made his decision to retire because going back was too much to risk and he was fed up with being injured. For him it “wasn't that hard a decision to make then, I don't think because I had another passion and I was suppose I was actually enjoying being healthy as well which I'd struggled with for 8 years.”

Damien, who experienced the most severe injury of the three participants, did not realistically have the option or choice of returning to rugby:

When it starts impacting on your quality of life that much, that's when a whole new level of reality sets in and you need to step back. That's ultimately when the decision is made that a hip replacement is what you are facing and then you're like you accept that okay rugby is no longer an option. It was horrible ya know

but then maybe it's a bit easier to take when you accept that it's not okay that you're day to day standard or quality of life is impacted in such a way.

Sense of Loss

Another significant cognitive appraisal of the injury was primarily concerned with the emotional and personal meaning of the injury to the participants. Their transition out of professional rugby was accompanied by the perceived loss of their personal and social identities as a rugby player. Brandon outlined how he felt this loss of identity and purpose:

It was always sports, sports, sports everything for me so when that chunk when that whole focus is taken out of your life, you're kind of left with ya know a void or what do I do, where do I go from here and it's a certain, a massive lack of confidence.

Damien also had a strong identification as a sportsman and a rugby player, "rugby like, it's the whole how you identify yourself ya know." Charlie's identity as a rugby player was not as strongly linked to his whole identity, however he also stated that he had feelings of invincibility as a rugby player and was "consumed" by the demands and activities of being a professional rugby player.

In addition to losses to personal identity and despite the participants in this study still having some contact and interaction with members of their rugby squad, the loss of the social side of the "special" environment of the team was particularly difficult to accept. Experiencing a career-ending injury meant that the participants were no longer an active part of their typical social setting of being part of a rugby team. All of the participants missed being surrounded by their teammates who were also their friends: "they're your shoulder to lean on I suppose and then you come out of it going into a new venture and looking what am I doing here?" (Brandon). Damien also described his feelings of loss towards the lack of interaction with the team: "Oh its horrible...it's like a dagger in your heart like a killer...the people you hang around with, the people you are closest with have moved on and it's difficult to get used to." Although Charlie had a strong social network outside of rugby, he too felt the loss of the rugby team as a social entity:

You'd miss just hanging around with the lads when you'd see them every day. You are kind of very close to them and you have the craic and it's kind of a special environment from that point of view. You don't get it anywhere else like.

The participants were also confronted with the loss of the ability to fulfil and satisfy their personal needs previously met by competitive rugby action since childhood. For Brandon, rugby provided him an avenue to satisfy his need to compete, to experience the physicality of rugby, and to let off steam. He commented:

I suppose it's something I've done since I was a kid and I find myself getting, I get very uptight, I can literally, cannot relax, it's a **** joke and I think a lot of it is down to that like. I always burned myself out in rugby and no matter what I was doing training wise, I would find it ok to be able to switch off even if I was injured because I would flog myself some way or I'd find something else.

Brandon described himself as “addicted” to training, to pushing and proving himself to others. Despite the career-ending injury, he felt that his need to be able to play had not disappeared, and continued to seek other ways to satisfy those needs. On occasions, the desire to play was reawakened by certain triggers, such as meeting friends from rugby or even watching rugby on TV: “it was a trouble to find something to focus on I suppose that way I'm still trying to find different things that will satisfy that side for that I have done for 10 years really.” In a similar way, Damien had a desire, a “hunger” to play and achieve. To satisfy this need, Damien turned to other sports because he “needed something to compete to look after that.” However, he appeared to be most concerned about his health needs and just being able to be physically active again.

On reflection: Sense of relief

In addition to the above negative appraisals, transitioning out of rugby was also seen as having positive effects. All three participants felt a sense of relief about being out of the professional rugby world. Though still feeling the lasting impact of his injury Brandon did not have to worry about the possibility of further or new injuries, treatment and recovery:

(I was) enjoying actually being healthy which I'd struggled with for 8 years in the rugby like. The mental ***** of being injured all the time is something that it makes you stronger, I always firmly believe it makes you a stronger person and all that but it's quite difficult to deal with ya know.

On reflection, Charlie too was glad to be out of the culture and free from the stressors of professional rugby:

I love playing like but it's a bubble like and looking back at it now, I'm glad I'm out of it because I see fellas still in the squad who are struggling with injury or just to make the team like and you can like, you get paid well at the end of the day, you can fall into a trap there where you are just happy to go along with it like and happy to get a good wage and happy to ya know just play the odd few games and that's something I never wanted to do myself, so looking back I'm delighted to be out of it. I'm doing something else and moving on with it.

Overall, the physically stressful impact of a career-ending injury was perceived as psychologically taxing and draining for the participants in this study. The athletes found it difficult to manage the demands of their severe injury and were seriously concerned about its implications for their long term health and quality of life. The gradual realisation of what the injury meant for the participants' health prospects appeared to create a shift in perspective and identity away from that of a rugby player. Still, the participants keenly felt the loss of this identity and of other aspects of their rugby career which they weighed up against the potential benefits of being out of rugby.

Emotional reactions

The hardship of suffering a career-ending injury elicited a variety of emotions in the participants which were almost entirely negative. The main emotions felt by the participants were those of frustration, anger, anxiety and grief. Unsurprisingly, all of the athletes appeared to be frustrated by the pace of their recovery and a lack of progress. For example, Damien reported:

I just tried to stay positive throughout but then it was a point comes...I was just going where the ***** am I going because I didn't feel any better. I was just popping anti-inflammatory pills, painkillers and still limping.

Some of the other sources of frustration for Damien and Brandon came from how others constantly associated them with injury and appeared to pity them. Damien reflected this attitude to encountering others' pity, "It's the sympathy, the sympathy, pity and all that ****. It's something that no one should be exposed to; it's the last thing you want."

For Brandon and Charlie, anger and frustration was felt toward the club for their lack of appropriate care and support after the injury. Charlie reported that "they said no as well like that they wouldn't help us out like they wouldn't help me out so I was quite angry with that like as you can imagine." Brandon made his views clear when he felt the club:

I sat down in August with the medical and physio staff and I gave them my **** two pence worth on what, on how the whole thing was **** up and how things should be changed and ah cus I'd nothing to lose at that stage ya know.

Another dominant emotional response felt by each participant both immediately after the injury and throughout recovery as the reality began to set in and their disbelief subsided was anxiety. This was mainly caused by several worrying thoughts such as losing contracts, uncertainty of the future and concerns about the long term physical health consequences of their injury. Charlie outlined his initial reaction to the injury, that of worry about his contract and future: "there's a million and one thoughts I suppose go through your head you immediately think my contracts gonna be ended like ya know where am I gonna be in a few months' time." Brandon also felt anxious about what the injury meant for his future:

You come out of it going into a new venture and looking what am I doing here. It's so unexpected. I suppose you'd be thinking as well financially and that side of it as well are you gonna be making enough money in the next 8 years that you are gonna be comfortable when you do come out of it, that you're gonna be ok and it all comes crashing down. That's a little bit daunting.

All of the participants in this study also experienced periods of grieving and feeling overwhelmed by the impact of the injury on their career and their life. Damien explained: "it was just the first time really releasing it I just broke down crying just

thinking about it, this was it ya know, that in itself was good but scary at the same time.” For Brandon, the emotional impact of the injury was particularly hard to handle:

I suppose you just have that whole grieving period and yeah just **** hit a wall...I lost unbelievable **** confidence in myself and what I was doing, didn't know where I was going and literally, yeah, struggled to get out of bed man, miserable.

This distressing period not only had an impact on his self-esteem and identity, but also affected his relationships with his significant others:

**** does change when you when you get something traumatic like that. I just , you just want to carry on and even relationships with girlfriends at the time, I remember ya know some relationships would be just ruined because you wouldn't think at the time but a lot of it was probably down to, I was probably difficult to be around at the time.

Charlie also talked about the emotional difficulties he faced: “it's very draining and every day you might feel like crying or whatever.” However, he also indicated that he was able to deal with these feelings: “I wouldn't be someone who would get down or anything like that or depressed in any way.”

The reality of professional rugby union

From the participants' accounts, it became evident that the nature of professional club rugby in Ireland also had a significant impact on the athletes' appraisals of their injury rehabilitation and recovery. All of the participants in this study felt that the reality of professional club rugby in Ireland, in how it is organised and controlled, majorly influenced their recovery process. As a business with limited resources, the rugby club was seen as an entity creating pressure to perform on both staff and athletes, and as a consequence, the participants felt that the club did not provide them with the support they felt they needed. In essence, three themes emerged which covered the impact of professional rugby on the participants' injury recovery and transition: the business of professional rugby, if rugby won't pay the bills, who will?, and pressure to play and perform.

The business of professional rugby union

All the participants shared a passion for the game of the rugby but recognised that professional rugby is first and foremost a business heavily influenced by the finances of a club. Charlie referred to it “as a numbers game and a money game” while Brandon and Damien were aware of the financial “constraints” under which a club operates. These constraints were thought to influence the structure and policies of the clubs as well as having a real impact on players’ overall welfare. Charlie referred to the people at the top, in command of running the club as uncaring about the person and seeing them as “just another number”. He and Brandon felt that the chain of command and pressure in the structure of the club meant that certain staff was not able to do their job effectively and it was the players who paid for it. Indeed, Charlie felt that his health was at times “jeopardised” by the medical staff. Brandon shared this negative view of medical staff by saying that in his experience, the medical staff was “a disgrace” and had acted “inexcusably” in their incapacity to aid recovery. At the time and while still employed by the club the players were weary of speaking out against the problems of the organisation for worry of “rocking the boat.”

If rugby won't pay the bills, who will?

As a business the rugby club was not feasibly going to continue to pay for players who weren't playing. Damien noted that “they (the players) are smart enough to actually realise that rugby isn't a sport that provides for you after you retire so you need to have some fall back.” With their unexpected retirement from sport and the loss of contract earnings, all three participants confronted real financial worries. These worries were about loss of income and the ability to fulfil financial obligations (such as mortgage payments), uncertainty about future earnings, and being able to cover the cost of treatment for their injuries. Damien reported that:

The I.R.F.U (Irish Rugby Football Union) after six months can cut your salary to 25% ya know so all of a sudden as weeks start turning into months and there is no progress you start taking into consideration you've got a mortgage to pay, 25% is not going to cover a mortgage.

Brandon also had “mortgages to pay, stuff that I've got to look after”. However, these concerns were alleviated somewhat for Brandon and Damien as both had the

financial cushion of payment protection insurance and therefore were still earning a higher percentage of their salary post retirement. This allowed them some breathing space and time to come up with a new plan and find a new source of income. Damien reported that “I didn’t have to rush into something that I didn’t actually want to do”, a statement which also reflected Brandon’s situation. He commented that “it would have been different I’d say if I had gone in to some **** office job that was a bit of a ball buster am and that I wasn’t that passionate about.” Only Charlie did not have any financial back up plan. Instead, at the time of playing, he felt that with the money he was earning it was not worth it. Despite having what he referred to as a real viable “plan B”, he still appeared to regret this decision somewhat:

It wouldn’t have been worth paying especially when I had a degree behind me and if heaven forbid the rugby did end then I wouldn’t be dependent on it but in hindsight it probably would have been a better idea in that it would’ve given me money for the next few years.

Another financial concern for Brandon and Charlie was the cost of treatment for their injuries. They reported that the club guarantees to “look after” the player for a least a year post injury but since both were unsatisfied with the standard of care they received from their club, they sought outside help which they had to pay for themselves. Due to the expense of this option, however, it was not always viable. Damien reported that he did have the support of his club to cover the cost of his treatment and so this was not an issue for him.

Of the three participants, Brandon had the strongest desire to return to playing action but the financial risks of becoming injured again, not being able to fulfil his new passion of music and losing income were too great.

It just became too, too much financially the financial risk of going back that you’ve got to move on. I’ve got two mortgages, I’ve got stuff that I need to look after am you’d have to dedicate quite a lot of your life to ah getting back, putting everything else on hold.

Pressure to play and perform

The “ruthless business” of professional rugby, as described by Charlie, meant that competition for places was intense and forced players to take chances with their health and injuries sometimes in order to secure a contract or starting place. As outlined above, loss of contract meant loss of income. Two of the participants, Brandon and Charlie felt this pressure from the club and the competition for places as well as within themselves. When injured, their one line of thought and focus was on getting back, playing for their position and proving themselves. This “need” to get back to playing action in the least amount of time possible meant that the athletes were willing to play through the pain, while injured or before they were fully recovered. The competition for places and contracts was so intense that they felt they had to play, “to make it or break it” as Brandon described, and therefore they played when their bodies weren’t fully ready. Charlie explained that a player in that situation has “no choice” and that “I knew, I knew I still wasn’t right but I wanted to get back before the end of the season because my contract was up.”

Brandon also reported that he was “exhausted” before playing a particular game in which he suffered an injury. Both athletes were willing to sacrifice their physical wellbeing somewhat and put themselves at risk of suffering a fresh injury or further aggravating a current injury if it meant they would play and secure a contract. Charlie put off surgery and prolonged his long term injury while Brandon commented that “I never felt one bit, ya know, any bit afraid of going into another challenge or another tackle or anything like, that it was never an issue and that’s possibly to my detriment that I maybe didn’t look after myself.”

Once again for Damien this was not an issue. Although he had high standards set for himself in terms of playing well and consistently, he didn’t report feeling pressure from outside and, as shown, the nature of his injury was such that he was more concerned about his physical health than returning to playing action.

Coping strategies and resources

In order to attempt to come to terms with the consequences of their injury and their adjustment to post-retirement life, the participants made use of a variety of coping strategies and resources. They differed, however, in the particular strategies they used,

the extent to which they used them and in their perception of the effectiveness of said strategies. The three most commonly cited strategies and resources were: 1) self-protection, 2) regaining control, and 3) perception of support.

Self- Protection

For Brandon and Damien, it was difficult to share with others what they were going through. As part of a self-protective strategy they avoided talking about their thoughts and feelings to significant others. Instead of expressing themselves openly, they kept it all inside and tried to deal with it on their own. As mentioned previously, Damien “didn’t want to talk about it” as a method of denying the reality of the situation. Brandon commented, “I didn’t let that many people in, yano, am yeah, I would just act normally with them.”

Another element of this protective strategy, for both participants, was putting up a front that everything was normal for their and others benefit. For Damien it was about putting up a “brave front” for those who cared about him so he wouldn’t upset them. Brandon, however, put up a front more so to protect himself and to avoid being associated only with injury,

It became a thing where I was, if I got injured, I’d try and make it, you instantly don’t want it to be as bad as it possibly is so you even try and let on that it’s not because I was so afraid of everyone trying to pigeon hole me.

Brandon wanted to disassociate himself from his injury “just so people, yano, the book would be closed, stop asking like.” As part of this strategy, Brandon also used alcohol as a social buffer in order to avoid feeling uncomfortable in social settings he wasn’t accustomed to and to brush off questions about his injury. “I wasn’t comfortable playing at the time because it was something so alien to me so I used to **** lash drinks into me after a gig to kind of put up with the crowd around me.”

Regaining control

All three participants were determined not to let their injury beat them and to work on and improve their physical health and abilities. Charlie represented the attitude of the athletes in that he was not prepared to let his injury dictate how he lived his life:

I'm not willing to kind of settle for it and hear look you're going to be disabled or not going to be able to do something for the rest of your life. I'm constantly training and I'm constantly working on it and that's tough as well like...where you're trying so hard to get right.

For two of the participants, Brandon and Charlie, the frustration they experienced with the support and incompetence of the club in the injury recovery process caused them to take on the task of managing the injury themselves. The participants were particularly angered by the lack of resources made available to them and "lost faith" in the medical teams' ability to treat their injuries effectively. This was especially true for Brandon who had injuries misdiagnosed twice, something "you just can't handle". He therefore researched extensively the best treatment options available for himself and sought outside expertise for other injuries:

What I did when I broke my leg I went outside...and did it myself and it was just a guy who worked on me physically and mentally like over 3 months and got me back to the best shape I was in. I've major regrets for not doing that for every injury I had but I just put my faith stupidly in the system.

Charlie also agreed that going outside of what was offered by the club and seeking help independently had a positive impact on recovery and reported that "it's probably been a bit better since I started doing it myself". Damien had a more positive experience with his club's support and level of care, with access provided to resources such as regular physiotherapy and outside consultations and admitted he was "well looked after". However, he also had to undertake the research himself to find the best options available to treat his injury, "one of the things that did annoy me was that I had to go find out about the specialist over...I went and found the surgeon."

Perception of support

All three participants perceived and used some form/s of support to varying degrees. It appeared that these sources of support also varied from different individuals and organisations. The participants perceived the support from their club quite differently. As pointed to earlier, both Brandon and Charlie felt that they did not have the financial or caring support of their club. This was especially relevant when they were told that the club would not cover their medical and physiotherapy bills. They felt

that the club did not match their level of personal investment with the “shocking” level of aftercare provided. Charlie explained that:

They said the same thing, that they wouldn't pay for physiotherapy or anything like that, so I that was shocking like, ya know, when you kind of sacrifice your body for a few years and you put in so much and what's a few quid to them like at the end of the day and I know times are tight but you've a duty of care to a fella as well.

Charlie felt a real lack of support, help and advice and felt alone after his injury something which he found was “one of the toughest things.” Brandon also explained that “lads needed to be educated and there was nothing there. I had to get in contact with surgeons myself and go and get second opinions in England all myself.” From an organisational perspective, Charlie and Damien did however refer to the Irish Rugby Union Players Association (I.R.U.P.A) as a valuable source of understanding, advice and support. Damien reported, “anytime I had issues or concerns, whether it was insurance or just an injury my whole situation, I just rang them up and it was great just to have that peace of mind.” He had a more positive experience of aftercare from his club and held different expectations of the post career. He found that his club were willing to support and accommodate him with the needs of his new educational practice, that the “door was open.”

Aside from organisational sources of support, all of the participants in this study felt they had the support of their treating physiotherapist with whom they had a special, trusting relationship and who acted in an unofficial capacity related to the club. The physiotherapist appeared to serve multiple roles of support. For Brandon, it was having someone stay behind after working hours and do extra recovery sessions. For Damien it was having someone understand and relate to the mental impact of the injury, someone who “could straight away relate to the injury and turmoil that I went through” and for Charlie it was someone to talk to, to vent his frustration and get advice.

Two of the participants, Brandon and Damien, also reported seeing a sports psychologist to help deal with the psychological impact of their injury and its implications. Damien stated that “he (the psychologist) was probably the only person I did talk to about it”. Being able to verbalise his thoughts and feelings helped Damien to begin to come to terms with the reality of the situation and towards acceptance. Brandon

also had similar views as he described talking to the sports psychologist as “a load off my back”. He “realised that I hadn’t parked it. I’d never really gotten over it ya know. It had been such a massive part of my life and I never dealt with it really.” The sports psychologists were also viewed as helpful in assisting the athletes to direct their focus away from the past and towards setting goals and planning for the future.

Social support for the participants came from their teammates and significant others in their lives. Each of the athletes described the special atmosphere of their rugby team and the strength, support and confidence to be drawn from within that environment. Brandon illuminated this in particular:

I would say when you are around those kind of people all the time, ya know, you’ve no choice there’s so much strength. I don’t know if it’s just this squad or what but there’s so much strength... but I was generally quite positive I suppose, I attached myself to very positive, influential guys in the squad.

Both Brandon and Damien also had the support and understanding of players in the squad who were “in the same boat” of a career-ending injury. This was something that Charlie didn’t appear to have because he didn’t know someone else going through the experience. Other sources of social support came from friends, family and partners. For Charlie his close relationship with his family and having friends outside rugby facilitated the transition in that he felt comfortable to talk and share with them. While the other two participants acknowledged that support was available to them, they didn’t actively seek or utilise it that much. Indeed, as shown earlier, Brandon and Damien mostly shut out others. Damien recalled, “I didn’t really call on a lot of people, maybe had the support of a lot of people but yeah I don’t think I would’ve verbalised a lot of stuff about what I was going through to too many people.” He did recall though that his wife “was probably the closest person to see it all kind of unfold especially the lowest point.”

Ability to move on

Although each participant was playing rugby union at a professional level, each had their own unique career path, interests and expectations. This influenced how prepared they were to move on both professionally and psychologically, in the short and longer term, to life after rugby and how satisfied they were post transition. In evaluating

the satisfaction of each athlete it is necessary to examine: 1) life changes, 2) pre-retirement planning and 3) dealing with the past and moving on.

Life changes

As discussed earlier, the participants didn't think that they would have an injury so severe that it would end their career. Dealing with the physical and psychological impact of the injury was therefore significantly influenced by athletes having to deal with the life changes arising from unexpected and forced retirement and their lack of preparation for such. As a consequence of suffering a career-ending injury and having to retire, the participants were faced with an uncertain future and a drastic change in their responsibilities, environments they found themselves in, their daily schedule and how their whole lives were organised. Brandon summed the situation up as follows: "the goalposts change when you are injured so everything else has to change with it."

In addition to the financial changes and concerns, one of the main issues arising from retirement was the dramatic change in schedule it brought for the participants, from having someone organise and plan what they did and when they did it, to being out on their own, facing uncertainty and taking on the responsibility themselves. Brandon explained that:

I think what scared me as well was that I was going into territory that I wasn't really comfortable with either, so am just organising myself and that was a massive part of me moving on and it's something so simple but it's not something I would be used to. In rugby you're told where to be, what to do, what to eat.

Damien had a similar experience, "all of a sudden your day to day, how you, your day to day schedule is just gone right out the window...all I wanted to know was what to do next", while Charlie felt he was "out on his own" with "no kind of direction."

The participants also found themselves in new, unfamiliar environments with new roles and responsibilities. Damien found it difficult to adapt to the "irrelevant things of everyday life, of professional life." Brandon commented that "there were a lot of things going on ya know like, I, everything was new for me. I'd a job, different responsibilities. People look at you differently I think, ya know." This particular aspect

of the transition was not as difficult for Charlie as he was realising his academic ambitions in an environment more familiar to him.

Pre-retirement planning

In spite of the participants facing an unexpected retirement from rugby and having to cope with financial and life changes, they were not totally unprepared for the transition. None of the participants in this study were solely involved in rugby at the cost of other endeavours. They had some interests and activities outside of rugby both before and during their career. Indeed, all three combined some level of education with rugby. Charlie had always had a keen interest in and placed priority on academics even over rugby. He commented that “if I’m honest it probably did come before the rugby at the end of the day, if I had to choose between the two.” His choices were heavily influenced by his family as well as his coach. He knew he could move on, adapt and have a successful future in another area. He noted that he “was lucky to have a plan together”. Damien, like Charlie, felt the time pressures and demands of juggling rugby with a college degree and therefore had little time to follow other social pursuits. With their experience in education, both athletes decided to pursue further academic studies once their career had finished. This had been their plan anyway but it had been brought forward “prematurely”. For Brandon, education was not so interesting but after an earlier injury he realised that he had no fall back plan and so decided to take action:

I got injured and that helped me to actually focus on, I had no plans in doing anything...and he (the coach) led me in the right direction and said look you probably need to focus on your studies while you’re injured.

Indeed, each participant referenced the emphasis that their coach placed on doing something outside of sport and having a post rugby plan. Charlie reported that “he’d be a huge advocate of fellas keeping on studies and doing other things outside of rugby.”

All the participants also spoke of the importance of not rushing into something but rather finding something that you can be passionate about for the long term so that you can focus on that and move on. Damien summed it up as follows:

Find out if you can what you’re passionate about ya know because whatever your next career is it should be something that you care about...because if you

just jump into a job that is just convenient or just for the sake of money you are gonna end up regretting it, you're gonna hate it...and just hate your injury.

Dealing with the past and moving on

Despite having something to move on to and invest their energy in academically and professionally, none of the participants thought that they were fully over their career-ending experience or had adjusted completely to their new life psychologically. Brandon had “got on with it” immediately and started a new role in rugby but also had time to follow his other passions. While satisfied with how his new pursuits were going, he still hadn't fully moved on from thinking about the past or a future without playing rugby. A level of uncertainty and doubt still remained:

I still, I still struggle, ya know, I'm not ****, I'm, I'm not, I don't think I'm through the woods yet, I think. I have good periods and bad periods, I suppose, ah with, with still dealing with the rugby side of things and finding my, my ya know , what's next for me or my career or what I want to do.

For Damien there was a need to complete his education and get over the tedious elements of college life before he could move on and realise his professional ambitions. He found it difficult to adapt to the demands and responsibilities of his new role but it provided a “welcome distraction” as he was able to distance himself from rugby. He was excited about his future career and using his knowledge and experience to help others. However, he also had yet to fully accept the loss of his career, hopes and social environment of the team. Upon his retirement, his wife had made a book of goodbye messages from those at the club but he told, “I don't want to read it, yeah, cus maybe I think it's something that when I've moved on really.”

The toughest thing that Charlie still had to deal with was the physical impairment of his injury, which he faced every day and the physical and mental draining effect this had on him. He was the most recent retiree and experienced “a tough year” with “dark moments” but he was “hopefully getting towards the end of it like getting out the other side, kind of getting on with it”. He remarked that he didn't actually miss playing rugby and was happy to be out of it and moving on to something else. The influence of his family led him to a new perspective on what was important.

Conclusion

The career-ending injury and subsequent transition out of rugby was, for the most part, perceived and felt as stressful, challenging and demanding by the participants in this study. The new post-injury reality faced by the athletes altered their perceptions of self, their psychological and physical wellbeing and their career and life plans. The ultimate success or non-success of the transition was dependant on the interaction between the personal and situational circumstances, demands and resources specific to the individual athlete which mediated their ability to recover both physically and psychologically. In particular, the severity of the injuries suffered by the participants, the nature of the sport and organisation to which they were a part of, and their level of preparedness had a significant influence on their recovery and transition.

DISCUSSION

The purpose of this study was to document the lived experiences of former elite, professional rugby union athletes who have experienced a career-ending sport injury. Specifically, it was intended to examine the factors which influenced the athletes' reactions to the injury and the resulting psychological and behavioural consequences. The experience of a career-ending injury and subsequent transition out of rugby was, for the most part, perceived as physically and psychologically demanding and difficult for the participants in this study. With the severity of their injuries the participants' faced a stressful, on-going struggle to recover and regain their physical mobility. For two of the participants, the stress of the injury was exacerbated by a lack of appropriate medical and financial support from their club which hindered their recovery. In addition to injury and health concerns, the participants were also confronted with the loss of their career and identity as a professional rugby player, financial pressures and life changes. In an attempt to cope with the double impact of their injury and transition out of rugby, the participants used a variety of coping strategies and resources including avoidance coping, taking control of their injury management and using support. Of particular importance for two of the participants was the support of a sports psychologist. The participants' level of engagement in post career planning was also an important factor in their ability to move on professionally and ultimately psychologically after the loss of their career.

In the following sections, the above findings will be discussed in light of past research on injury and career termination, with specific attention first paid to the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998) and the conceptual model of adaptation to retirement (Taylor & Ogilvie, 1994; 2006). In line with the assumption of the constructive role of the researcher in I.P.A (Smith et al., 1999), the author of the current study acknowledges that previous knowledge of these models and other information pertaining to the experiences of career termination and injuries may have come to influence the interpretation of the current findings.

5.1 Conceptual frameworks for examining the career-ending injury experience

The current section is set out to discuss the findings of the present study in relation to the aforementioned theoretical frameworks. Firstly, the participants' injury experiences will be related to the integrated model and secondly the participants' experiences of transition will be presented in light of the conceptual model.

Examining the participants' injury experiences, the findings of the current study indicate that the injury recovery process was heavily influenced by personal factors of the participants as well as factors related to their sporting, organisational and social environment. Those personal factors which had the most significant impact on the participants' experience were the athletes' history of injury and the severity of the career-ending injury. The participants' access to a facilitative rehabilitative environment was also a key factor in their recovery. The conditions of rehabilitation and support provided to the participants from within their sporting and club structure were insufficient and hindered their recovery. In line with the integrated model of psychological response to sport injury and rehabilitation (Wiese-Bjornstal et. al, 1998), the interaction of these factors strongly influenced how the participants' perceived and experienced their injury and their subsequent emotional and behavioural reactions. As such, the participants appraised the career-ending injury as stressful and experienced a variety of negative and distressing emotions such as anger, frustration, anxiety and grief, consistent with past research findings (Alfermann et al., 2004; Kerr & Dacyshyn, 2000; Lally, 2007; Stoltenburg, Kamphoff & Bremer, 2011). Tracing the directional flow of influence i.e. the dynamic core of the model through the participants' accounts, it was evident that at first they tried to remain positive and see their injury as manageable but as the painful reality of the severity of their injury set in, they appraised their injury as more stressful and demanding, leading to feelings of frustration, anxiety and grief. Two of the participants perceived a lack of support from their club, increasing further their frustration and anger as well as feelings of isolation. As a behavioural response, they took on the management of their injury themselves, to positive effect. Social support was used to surprisingly minimal extent, with two of the participants avoiding discussing their injuries with others. They did decide, however, to share their concerns with physiotherapists and sport psychologists.

The participants were also feeling the loss of playing, of being a rugby player and competing and of just being an active, strong, healthy man. As before, they were frustrated about their lack of progress in recovery and their physical limitations and anxious about their future quality of life. The participants responded by attempting to get on with other things such as work, education and hobbies which served as distractors.

Overall, the participants exhibited a range of cognitive, emotional and behavioural responses after the injury and during rehabilitation. These responses were either facilitative to recovery (e.g. taking control of injury management) or hindered recovery (e.g. avoidance coping). Similar to findings of a recent study (Clement, Arvinen-Barrow & Fetty, in press), the interaction of the participants' responses were not exclusively unidirectional i.e. appraisals influencing emotions, influencing behaviour but emerged in a cyclical process, fluctuating throughout their rehabilitation. Ultimately, the participants' physical and psychological recoveries were linked together as suggested by the integrated model but as yet, they had not fully recovered in either respect from the impact of their career-ending injury.

The integrated model was found to provide a good base from which to understand the injury experiences of the current participants but some issues were addressed which are not included in the model. For example, the participants were frequently and/or severely injured and thus unwantedly became associated with injury. This negative association attracted pity and sympathy and impacted on their career direction i.e. no club wants to take a gamble on an injured athlete. It also annoyed and angered the athletes to have to deal with this constant reminder of their injuries and so they put up fronts to avoid the subject. In addition, the integrated model lists severity of the injury as an influential factor in recovery. However, this does not account for the added impact of surgery the participants experienced or the further concerns they shared for their long term health and quality of life. An athlete may experience a serious injury but this does not necessarily account for the physical mobility limitations they can face in the short and long term.

Suffering the career-ending injury, the participants confronted the dual challenge of coping with implications of their injury, as discussed above, and of their forced retirement from sport. This transitional process was influenced by the severity of the

injury the participants experienced as well as other personal, social and environmental factors. According to stage two of the conceptual model of adaptation to retirement (Taylor et al., 2006, Taylor & Ogilvie, 1994) the nature of these factors can bring about major financial, psychosocial, occupational, and life changes. How an athlete deals with these changes and experiences retirement is predominantly dependent on their access to and use of coping resources and strategies, as outlined in stage three. The findings from the current study indicate that the participants' abilities to successfully transition out of rugby were indeed mediated by the balance of their resources and demands, providing support for the model. The most salient of these factors was the strength or value of the athletic component of each participant's self-identity. Each participant's personal development and self-identity were significantly, if not exclusively, linked to rugby. Losing their personal and social identity as a rugby player was therefore difficult and somewhat distressing. Furthermore, the participants had to suddenly deal with some of the realities of not being a professional sportsman anymore. They were no longer earning an income from rugby and they were now responsible for organising their own lives. They therefore experienced further anxiety because of an uncertain future.

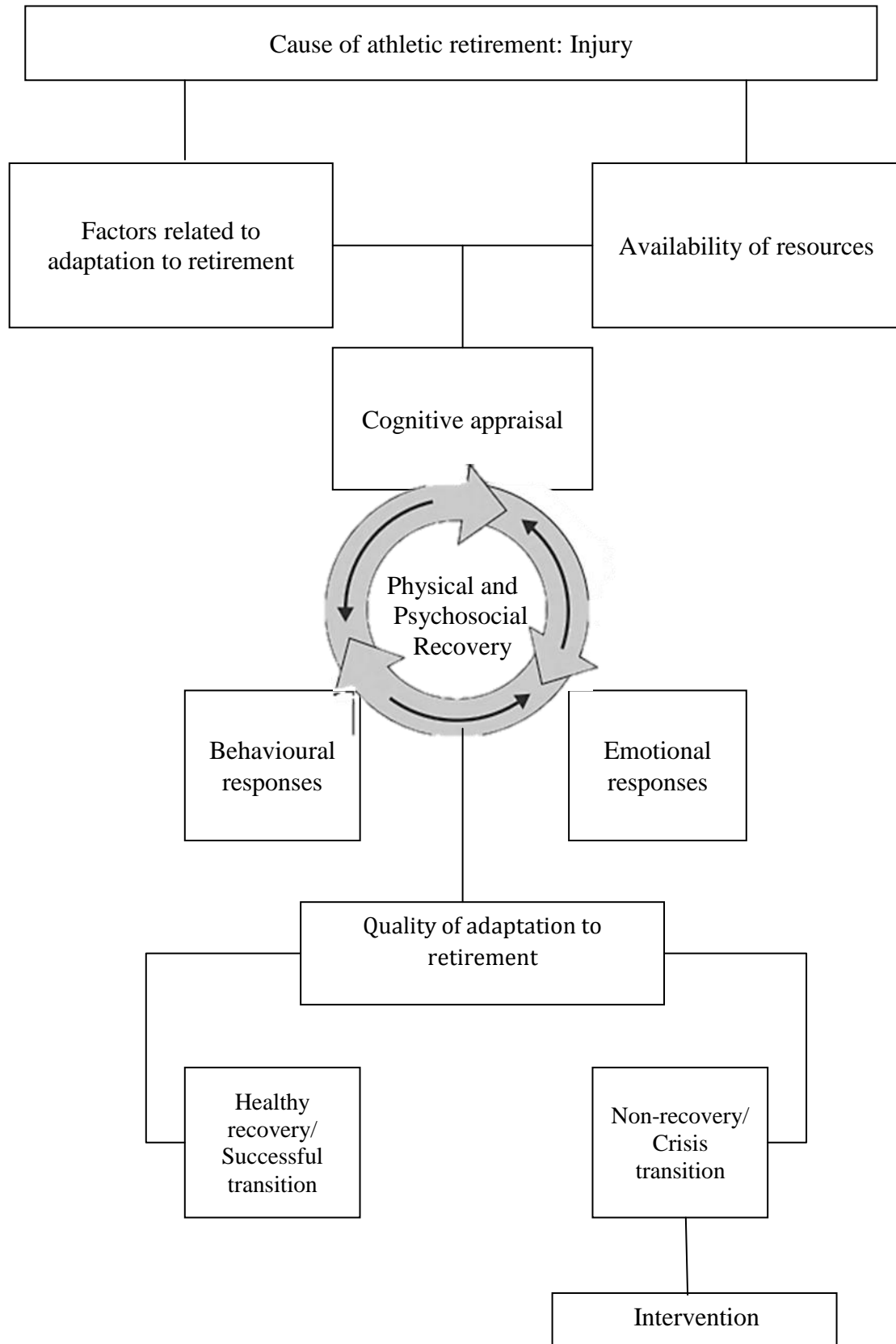
The participants' abilities to cope with the short and longer term demands of their retirement were predominantly influenced by their level of engagement in pre-retirement planning and preparedness for the transition as well their use of coping strategies and resources. As was the case for their injuries, support from the participants' club was, for the most part, also lacking in their retirement. Support was found, however, from other sources including teammates, physiotherapists and sports psychologists. The sport psychologist in particular played a vital role in assisting two of the athletes to overcome their psychological difficulties in coping with their injury and transition out of rugby. Nevertheless, the participants were yet to fully recover psychologically and move on from the impact of their retirement.

While the conceptual model was useful in pinpointing those factors which influenced the participants' experiences of the retirement process, it could not specifically address the need to understand what the participants were going through, what they were thinking, how they felt and why they responded as they did. In this respect the integrated model can complement the conceptual model in examining the experience of career-ending injuries by taking into account cognitive and emotional reactions. By utilizing elements from both models, the range of aspects potentially

relevant to both psychological reactions to injury and the process of career transition out of professional sport may be better understood.

Figure 1 represents in a general sense how the dynamic core of the integrated model can add to the conceptual model by taking into account the influence of the athlete's psychosocial responses. In this figure the cause of retirement (injury) and the factors related to the athlete's adaptation to retirement (e.g. self-identity), interact with the coping resources (e.g. social support) available to the athlete and subsequently on how they appraise their situation. This appraisal then elicits and is in turn influenced by the emotional and behavioural responses of the athlete. This cyclical process determines how the athlete recovers psychosocially from their transition out of sport. In scenario one, the athlete recovers both physically and psychosocially from their career-ending injury and experiences a successful transition out of sport. In scenario two, the athlete is not recovering from their injury and/or is experiencing a crisis transition out of sport. In this case it is most likely that the athlete will require an intervention to wholly recover from the impact of the career-ending injury. The athlete's recovery may also be ongoing and they may therefore require more time to recover.

Figure 1- Addition of psychosocial responses to the conceptual model of adaptation to retirement from sport (Taylor & Ogilvie, 1994)



5.2 Factors influencing injury experience

Exploring the results further, this section examines the most significant influencing factors on how the participants perceived and reacted to their injury. The physical strain of a career-ending injury was felt as psychologically draining as the participants found it difficult to cope with and manage the demands of their injury and were seriously concerned about its implications for their long term health and quality of life. Athletes, who have experienced multiple injuries previously, such as the participants in the current study, are said to cope better psychologically with a serious injury than those who are experiencing it for the first time (Gordon et al., 1991; Johnson, 1996). However, the potential for a stressful response to the career-ending injury, as was experienced by the participants, may have increased because this injury was too severe to match their previously held expectations of the recovery process. The more news the participants received about their injury, the more they came to realise just how serious it was. This injury was not just part of the sport anymore; it challenged the participants' thoughts about their invincibility as a rugby player and had further reaching implications for their career and health than before. As put forward by (Smith et al., 1990) the more severe the injury the greater the chance that an athlete will have a traumatic appraisal and reaction. Therefore, the participants potentially experienced greater degrees of physical and psychological stress as they faced more setbacks and a lack of progress in recovery that they didn't anticipate. This was the case for all of the athletes in this study as they each required surgery and prolonged rehabilitation. In fact, this rehabilitation was *still* on-going and the participants were frequently, even daily, painfully reminded of their physical limitations.

External, situational factors outside of the participants' control also played a significant role in their experiences of injury. In particular, the culture and organisation of professional club rugby in Ireland and the participants' access to rehabilitation influenced their perception of and recovery from injury. These factors affected the athletes in two main ways. Firstly, the culture of rugby appeared to influence how the participants perceived injury. Similar to findings in a recent study, injury was something that was part of the job and something that you just got on with (Arvinen-Barrow, Massey & Hemmings, in press). The participants felt an illusion of invincibility as a professional rugby player. They put themselves in harm's way and risky situations when their bodies may not have been ready. Two of the participants felt they had no

choice but to do so. They needed to secure playing positions and contracts. By doing this, they may have significantly increased their risk of injury and injury aggravation, as outlined in the stress-injury model (see Andersen & Williams, 1988). From the participants' accounts, it could be argued that a risk culture may prevail in rugby union whereby athletes are encouraged to accept risk, pain and injury as part and parcel of the game (Frey, 1991). As was evidenced in the current study, sport organisations can create pressure on athletes to play and perform even when injured (Nixon, 1994). This pressure may be overt or simply perceived by the athletes. The athletes can then internalise this pressure (Crossman, 1997) as was the case for the current participants.

Secondly, the reality of the organisation of club rugby impacted upon the players' injury recovery. This was keenly felt by two of the athletes in this study who thought that their best interests were not taken care of, that they were just another number. Moreover, their rehabilitation and recovery was hindered and their health "jeopardised" by the lack of access to appropriate care providers and the lack of support, both financially and other. This reflects claims that organisational support for athletes is usually highest when they are at their peak of their career but can decrease dramatically when they retire (Alfermann & Stambulova, 2007; Sinclair & Orlick, 1993). The difference in experiences of the three participants, with only one receiving an appropriate level of support post-injury may have reflected the status of the players within the club. Athletes in previous studies have attributed their negative experiences during their career transitions to unequal power in the sporting system to which they belong (Blinde & Stratta, 1992; Parker, 1994). Indeed, Charlie and Brandon felt that they had little power and the club did not match their level of personal investment with an appropriate level of support. They felt they simply deserved better treatment. From their accounts Brandon and Charlie even thought that a two-tier system was present whereby more influential players would potentially receive better treatment. Furthermore, it was significant that the two participants who did not receive this support had not spoken up about their maltreatment while still at the club because they didn't want to rock the boat. Indeed, Brandon lamented that he had not been more assertive and that he should've demanded better from his club at the time.

5.3 Factors influencing transition experience

Moving on from the injury experience to the participants' transition out of professional club rugby, it was evident that self-identity was an important factor in how the participants responded to the end of their career. The participants' sense of loss of the identity as a rugby player may have affected their levels of stress and acceptance towards their transition. Even though each of the participants had interests and social networks outside rugby, they keenly felt the loss of their personal and social identity they had formed from a passion of playing rugby which constituted a significant part of their self-concept. They struggled to adjust emotionally to their new reality with one athlete exhibiting symptoms of depression. Similar to the findings of past research (Alfermann et al., 2004; Erpic, Wylleman, & Zupancic, 2004; Grove et al., 1997), the participants whose identities were predominantly invested in their sporting career experienced a more difficult transition, exhibited psychological difficulties and struggled to adjust both socially and emotionally.

The difficulties the participants experienced surrounding their identity may also have been caused by the level of ambiguity in their decision to retire. On one hand, the gradual realisation of what the injury meant for the participants' health prospects appeared to create a shift in perspective and identity away from that of a rugby player. In this sense, the career-ending injury was like a "double-edged sword." The severity of the injury while causing immediate and prolonged physical and psychological stress also seemed to help the participants to accept the reality of the fact that they would not play rugby again. The importance of managing their injury and needing to improve their physical condition was placed above that of returning to rugby. On the other hand, for Brandon in particular, there was still an element of ambiguity about the "final decision" to retire. Despite the severity of his injuries, he reported that he was never explicitly told he would not be able to play again. He still held some semblance of hope that there was a chance of a comeback. This ambiguity may well have contributed to the stress of the injury and transition as well as his ability to accept retirement and to move on as has been found in previous studies (Stoltenburg, Kamphoff & Bremer, 2011; Kerr & Dacyshyn, 2000).

The participants' perspectives on their playing careers also mediated to an extent their ability to accept that they were no longer professional rugby union players.

For Brandon and Charlie their identity had been already been challenged in a sense throughout their career as people came to associate them with injury. Looking back, all the participants reported a mix of low points and highlights, personal and team successes. Charlie found it easier to move on as his career was not fulfilling his personal ambitions. Brandon and Damien found it more difficult as it was a case of what could have been if they had not been injured. Since they could not fulfil the goals they had set out for their career, they appeared to experience more difficulties in losing their identity and moving on to life after rugby, supporting the findings of previous studies (Park, Lavelle & Tod, 2013; Sinclar & Orlick, 1993).

While looking back to the past, the participants were abruptly confronted by a new, uncertain present and future. Transitioning out of sport brought with it certain practical issues. Their forced retirement from sport and subsequent loss of contract resulted in a loss of income which was a major concern for the athletes. This was especially true for Brandon and Charlie as they did not have the financial support of their club. It has been found that athletes who experience financial problems have been found to encounter more difficulties in their transition (Lotysz & Short, 2004; Menkenhorst & Van Den Berg, 1997). Fortunately for the participants in the current study, each had some sort of fall back or financial back of plan which eased the pressure and concern over their financial obligations somewhat. In addition to changes to their financial welfare, the participants also encountered major changes to their schedules and how they organised their lives. As described by Filip (1995), the established, comfortable fit between the players and the professional sporting environment had completely changed. The responsibility for planning their daily schedule was suddenly placed in their hands when they were previously accustomed to having everything organised for them by the club. This created a structural void and left the athletes feeling anxious and uncertain about how to organise themselves and what they would do next. The lack of guidance and support from their club added to this uncomfortable feeling. The athletes also had to readjust their goals from the plans they had for their rugby career to finding a new passion and a new sustainable career. In this new environment the athletes confronted a change in their responsibilities, roles and their identity which they struggled to adjust to. As found in earlier studies (Kerr & Dacyshyn, 2000; Schwenk, Gorenflo, Dopp, & Hipple, 2007; Stephan et al., 2003b) the

participants in the current study found it difficult to accept and adjust to their new lifestyle, particularly in the initial period of the transition.

The difficulties the participants faced may be explained by a lack of preparation for the initial, short-term demands of transitioning and gaining responsibility over their own lives. With the help of their coaches they had planned, to some extent, for professional life after rugby but had no concrete, clear goals. They also were not psychologically prepared to deal with their transition. Athletes who plan for the post career are said to adapt faster and easier to life after sport and feel more positive and satisfied about their lives (Alfermann et al., 2004; Wylleman, Lavalley & Alfermann, 1999) but, in the case of the current participants, their long term plans were somewhat undermined by a lack of planning for the short and medium terms making their transition longer and more difficult.

5.4 Coping with the psychosocial impact of a career-ending injury

In order to deal with the demands the career-ending injury brought on, the participants demonstrated different behavioural coping strategies including emotion-focused, avoidance-orientated and problem-focused approaches (Kowalski & Crocker, 2001). Moreover, they utilised problem-focused coping strategies the most frequently, consistent with the findings of Nicholls and colleagues (2006) in their study of rugby union players' coping strategies. For example, to cope with the demands of their injuries, the participants took control of their injury management and rehabilitation to positive effect. Two of the participants also engaged in avoidance orientated coping. Even though they recognised that the support was there if they wanted it, they kept their concerns to themselves and dealt with it internally. As in the study of Day and colleagues (2006) avoidance coping actually appeared to be detrimental to the athletes' well-being who expressed the wish that they had let others in and use the support they offered. Avoidance coping could therefore be considered an indicator of an unhealthy transition (Wippert & Wippert, 2008). The participants in the current study also used more active strategies including injury management and self-protection. This is in contrast to the findings of (Stambulova et al, 2007) who found that athletes who experience forced retirement adopt more passive approaches. Surprisingly, and in contrast to previous research (Rees, 2007; Sinclair & Orlick, 1993; Taylor & Ogilvie,

2001a) the participants used social support from family, friends and significant others to minimal extent.

The participants did, however, seek out the assistance of a physiotherapist. The physiotherapists not only treated their physical injury but also provided advice, guidance and understanding. In contrast to recent research findings (Arvinen-Barrow, Massey & Hemmings, in press) the participants openly shared their feelings, thoughts and concerns with their physiotherapist. Having someone who could understand what he was going through was crucial for one of the participants in particular and greatly facilitated his recovery. He felt that this should be one of the main roles of a physiotherapist; to treat the person as well as the injury and to show that you care. He summed this up with the quote “people don’t care about what you know until they know you care.” The participants’ experiences appear to support previous findings which suggest that athletes who feel cared for are more motivated and use more facilitative coping strategies in recovery (Ryan & Deci, 2000; Arvinen-Barrow, Massey & Hemmings in press). The findings also support the proposition that physiotherapists are in a position to treat the psychological as well as the physical impact of the injury (Arvinen-Barrow, 2013; Pearson & Jones, 1992; Wiese & Weiss, 1987; Wiese, Weiss & Yukelson, 1991).

Due to the on-going difficulties they faced in coping with their injury and transition, two of the participants required more assistance and support. Through the help of a sport psychologist, they managed to eventually express themselves and “let it all out.” The sport psychologist acted as a facilitator of emotion-focused coping as the participants released the emotional burden they had been carrying by verbalising their thoughts and feelings, discussing the impact of the injury and progressing towards acceptance of the new reality they found themselves in. By helping the athletes to deal psychologically with the past and set goals for the future they were in a better position for recovery. Goal setting, among other psychological strategies, has been found to aid athletes in their recovery from injury and transition (Beneka et al., 2007; Flint, 1998). Through reaching the goals they had made with the assistance of the sports psychologist the participants could shift their attention away from the negative appraisal of past events towards a clearer, positive outlook on their short and longer term personal and professional life. Since sport psychologists may be underutilised in their capacity to assist athletes and/or they are not always available, especially beyond the realm of

professional sports (Arvinen-Barrow et al., 2007; Arvinen-Barrow et al., 2010; Brewer, 1998), it is of importance that any affected athlete has access to other sources of support, such as that from a physiotherapist, to facilitate their psychological as well as physical recovery.

In summary, the participants in the current study experienced mixed transitional success in terms of adapting physically, psychologically and professionally to post rugby life. As shown earlier, the participants' injuries still impacted on their physical health and psychological health to some extent. Similar to past research (Gilmore, 2008), the strain of managing their injury, pain and health problems increased their anxiety and made it more difficult to cope and adjust. It is also important to note that the emotional reactions of the participants were strongest in the early stages of injury recovery. This is consistent with studies by Leddy, Lambert and Ogles (1994) and Udry (1997) who proposed that injured athletes' mood states seemed to fluctuate the most in this initial post injury period. However, the current participants still reported feelings of sadness, of anger, of anxiety about the next stage of their lives and career and especially frustration about their recovery, the physical impact of the injury and the limitations it placed on them. As proposed by Koukouris (1991) it appeared that the participants needed more time to adjust better and adopt a more positive perspective on their transition. The time elapsed since the start of the transition may be an important factor to take into account when examining how well the athlete is adapting as generally fewer difficulties and less stress are reported over time (Lally, 2007; Wippert & Wippert, 2008). Indeed, looking back two of the participants reported that the transition out of sport was not exclusively negative but also had some positive implications. Still, the participants themselves acknowledged that they were yet to fully move on psychologically from the experience of a career-ending injury. They needed time to realise their new professional goals and ambitions and recover some of their physical mobility once more.

5.5 Practical Implications

5.5.1 Rugby related factors

From the players' accounts of their career-ending injury experiences it was evident that the culture and organisation of professional rugby union in Ireland acted as a significant, external influence on how they perceived, reacted to and dealt with their injury and transition. The athletes thought that there had been steps taken to improve the treatment of injured players but still believed or knew of current players who were in a similar position as they had been: injured, uncertain, alone and anxious about what would happen next. Professional rugby clubs should be aware of the impact their organisational policies can have on the injured athlete's recovery process. They need to acknowledge the importance of their role and, in co-operation with organising bodies such as the I.R.F.U and the I.R.U.P.A, provide adequate levels of medical, financial and other support for all of their athletes. Ideally, this support would be available throughout the athlete's career and post-retirement.

The culture of rugby also had an important influence on the participants' injury experience. A pressure to play and secure a contract almost forced them to come back to playing action prematurely and certainly had an influence on their injury risk and aggravation. Identifying as a rugby player also influenced this risk in that the participants never thought that injury could stop them fully, that they were frequently prepared to put their body on the line. Based on these findings and the recommendations of the athletes in the current study, it seems imperative that athletes are offered education on injury risk prevention and management. The current author agrees with the proposition of Clement, Arvinen-Barrow and Fetty (in press) that players are educated on the type of psychosocial challenges they will likely face in injury rehabilitation and how best to cope with such. In this way, players can regain some control over their injury recovery by taking a more active role in the process.

Injured players should also be kept involved in the team, when possible, and be given guidance about how they could use their time most effectively while injured. Finally, from the participants' accounts it was apparent that players should be able and confident to speak up if they feel that they are being treated to a sub-standard level of care and support. Indeed, the participants noted that any change to the current system has to be player driven.

5.5.2 Importance of planning

The athletes in the current study were somewhat prepared for the transition out of professional sport. They had, to varying degrees, back up plans for their financial and professional future should they have to retire. Importantly, this allowed the athletes some breathing space and some time to think about what they were going to do next and how they were going to do it, meaning they did not have to rush into something they didn't want to do. Despite this, the athletes were still uncertain and anxious post retirement not knowing how to organise themselves, how to deal with the stressors of the transition, who to go to for support and how to most effectively manage their injury.

It is recommended, therefore, that athletes have access to and are encouraged to take part in pre-retirement planning. Athletes should have interests and have access to educational and other activities separate to rugby before, during and after their career. In this way, they also reduce the chance of developing their identity based solely on their rugby life and can foster a passion in other endeavours. It is important that any plan fully prepares an athlete to cope and includes physical, professional, financial and psychological elements. As in the case of injury, participants should also be informed of the types of challenges they could face in the transition out of sport. Practically, the plan should set clear goals for what the athlete can do in the short and medium term as well as having longer term goals to aim for as it is in the initial period post transition when the athlete may be most confused and anxious. It may be also beneficial that the athlete has the support of others in making a plan, both in a professional capacity involving coaches, physiotherapists and sport psychologists and in a personal capacity with significant others. From an Irish rugby perspective the I.R.U.P.A currently works with rugby athletes and clubs to deliver opportunities for personal and professional development as well as pre-retirement planning. This valuable service needs to be brought to the attention of all players and utilised more to facilitate increased awareness of and better preparation for life after rugby.

5.5.3 Importance of support to aid recovery and transition

As demonstrated, the athletes experienced a predominantly distressing transition and had issues moving on from their injury. The participants' responses to their injury and career termination were cognitively and emotionally driven and they made use of multiple forms of support including physiotherapists, sports psychologists, player associations, teammates, friends and significant others. Practitioners need to understand what the athlete is going through, what an athlete is thinking, how they feel and why they respond as they do. Those working with seriously injured athletes need to identify at which phase or stage of the recovery process the athlete is going through and assist accordingly. To aid in this, practitioners could utilise the phase approach of Kamphoff, Thomae and Hamson-Utley (2013) and implement appropriate strategies to counter the stage specific psychosocial challenges that athletes are confronted with during recovery. For example, in the athlete's reaction to injury phase, a physiotherapist can help to change the athlete's perception of their injury to being more manageable. In the case of a career-ending injury, the third phase of injury recovery process, that of returning to sport would be replaced by the transition to life after sport. Here a sport psychologist could facilitate emotional coping and moving on if necessary.

It is also recommended that athletes have access to multiple sources of support from both inside and outside their sport. A sports psychologist should be available for the injured athlete as this is the professional most suited and equipped to help the athlete recover psychologically from injury and transition stressors. Physiotherapists can also have an important role to play in this regard and should be educated about how they can treat the whole person and not just their physical injury in the recovery process. This is especially important in the case that a sport psychologist is not a feasible option for the athlete. It also appeared from the findings in this study that avoiding the reality of the situation was a maladaptive strategy for the athletes. Once they openly discussed the issues they were facing, they were able to cope better and accept their new reality. Injured athletes should therefore be encouraged to try and involve others in their rehabilitation process.

In summary, the author of the present study echoes the call of Park, Lavelee and Tod (2013) in providing both proactive (e.g. post career planning) and reactive support services (e.g. cognitive restructuring, emotional coping) to assist the athlete through the

injury and transition process. This support would ideally come from different sports medicine professionals working with the athlete. A multi-disciplinary approach as advocated for by Clement and Arvinen-Barrow (2013) potentially enables a more holistic recovery process, attends to psychosocial as well as physical needs and facilitates communication between all those invested in the athlete's recovery.

5.6 Limitations and recommendations for future research

The present study is not without its limitations. A small sport specific sample was used as the researchers wanted to explore in depth the meaning attached to a career-ending injury experience for each former professional athlete and what influence the sport had on this experience. However, the size and nature of the sample means that the findings cannot be generalized to fully encapsulate the experience of other professional athletes who suffer a career-ending injury. Future research could therefore be carried out on a larger sample. This study was also based solely on rugby union players. Rugby union is an extremely intense and physical sport with a high injury risk. The impact and process of transitioning from a career-ending injury could be explored in other high injury risk sports such as Australian rules football, ice hockey, combat sports etc. and conversely in sports with less chance of serious injury to investigate how the nature of the sport influences an athlete's experience.

The importance of pre-retirement planning in transition success was evident in the current study. Similar to the majority of research in this area, this was a retrospective study with the participants recalling how prepared they were for this transition and how well they adapted to post-career life. Studies such as these are said to be limited by participant's recollection and the potential for recall bias (Kerr & Dacyshyn, 2000; Lavallee & Robinson, 2007). Indeed, the length of time elapsed since injury and may have an important influence on athletes' recovery and perspective of their career (Lally, 2007; Wippert & Wippert, 2008). This was evidenced in the current study as the participants appraised their injuries and transition as more stressful and had stronger emotional responses in the early stages of recovery which weakened with time. The author supports the view of Park, Lavallee and Tod (2013) that more longitudinal studies are needed to examine the dynamic process of career termination over time. In this vain, future research could also investigate the preparedness of *current* athletes for

life after sports and, where appropriate design interventions to assist players in this regard.

Lastly, when examining how an athlete experiencing a career-ending injury, it appears logical to utilise elements of both the conceptual model of adaptation to retirement (Taylor et al., 2006, Taylor & Ogilvie, 1994) and the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et. al, 1998). These two models can complement each other in understanding the experience of a career-ending injury by covering the range of aspects potentially relevant to both psychological reactions to injury and the process of career transition out of professional sport. Further research is needed in this regard and could, for example, examine how the dynamic core of the integrated model can be added to and fit with the conceptual model's framework in relation to understanding career-ending injuries.

5.7 Conclusion

Injuries are an ever present and almost unavoidable risk in the life of a professional rugby union player. In this extremely physical sport, career-ending injuries are unfortunately also not uncommon. The career-ending injury and subsequent transition out of rugby was, for the most part, perceived and felt as stressful, challenging and demanding by the participants in this study. In particular, the severity of the injuries suffered by the participants, the influence of their rugby club and their level of preparedness significantly impacted on their injury recovery and transition processes. The new post-injury reality faced by the participants altered their perceptions of self, their psychological and physical wellbeing and their career and life plans. As a result, the participants experienced difficulties in adapting to life after rugby. The participants utilised multiple forms of support, including a sports psychologist, in an attempt to cope with these difficulties. They still required more time, however, to recover and move on both physically and psychologically. Based on the current findings, it is recommended that injured athletes are educated on injury prevention and management as well as pre-retirement planning and have access to multiple sources of support. It is also of importance for rugby union clubs to take responsibility and an active role in an athlete's injury recovery as the level of support they provide is a crucial factor that can heavily influence the success or non-success of this process.

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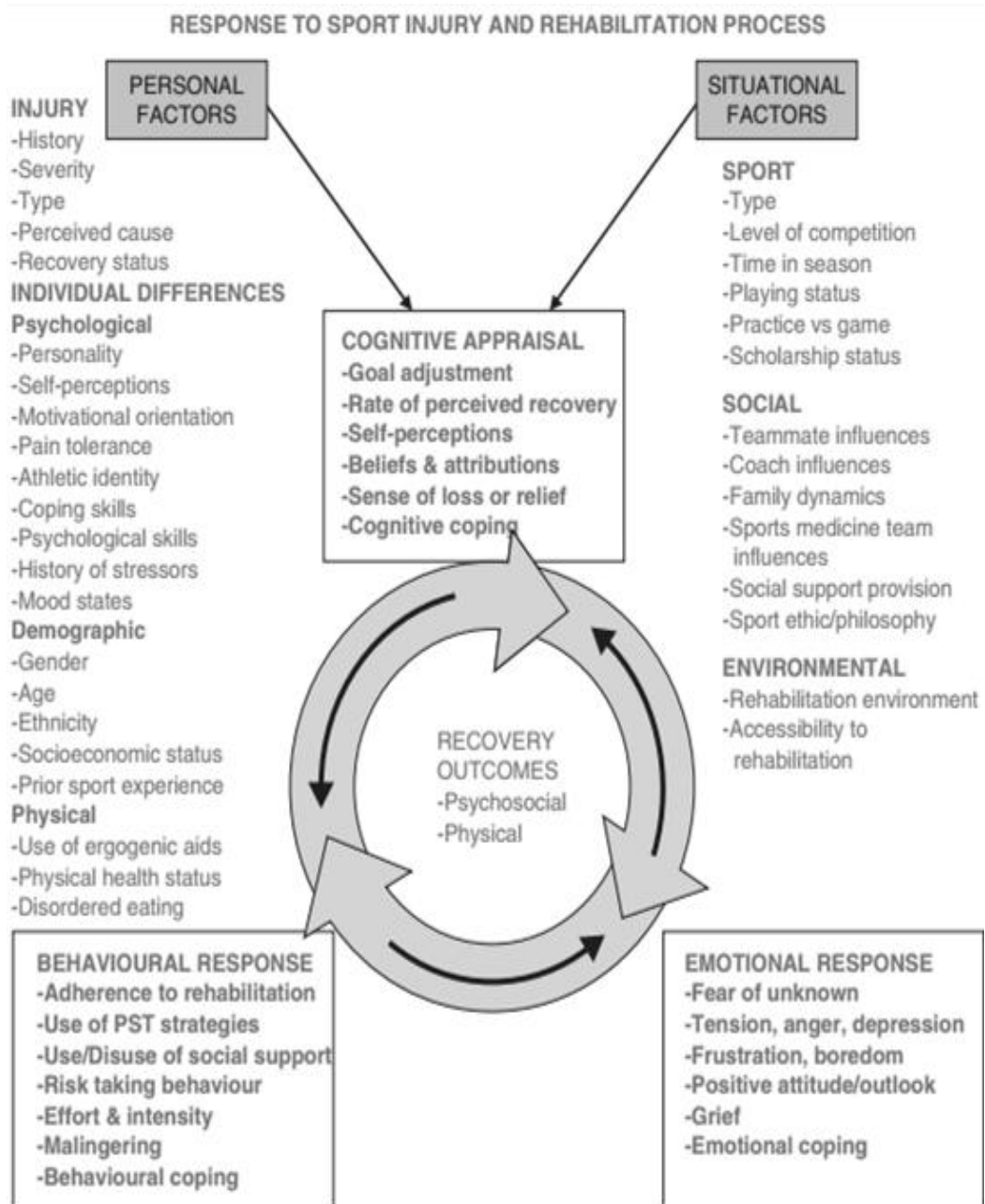
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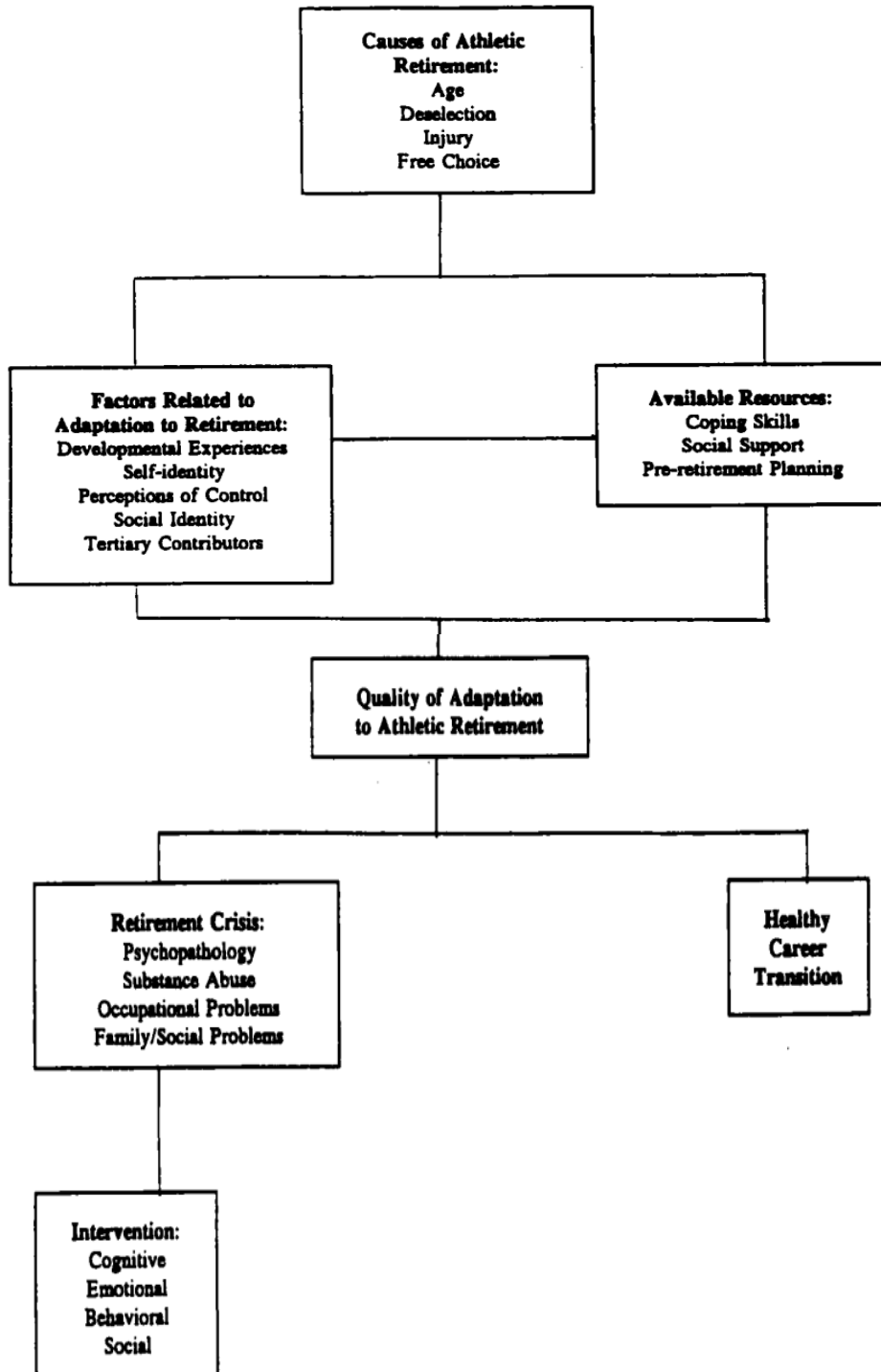
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APPENDICES

A) The integrated model of response to sports injury and rehabilitation (Wiese-Bjornstal et al., 1998)



B) The conceptual model of adaptation to retirement from sport (Taylor & Ogilvie, 1994)



C) Interview guide

(A) Injury experience (Recorded)

- Could you tell me about your involvement in sport?
- Can you describe some of your most memorable moments you had while playing your sport?
- As you know, we are here to talk about the injury that unfortunately ended your career. Can you describe how it happened?

(B) Reactions to injury (Recorded)

- Could you tell me what were you thinking after the injury?
- How did you feel after the injury?
- How did the injury affect your behavior?
- Can you explain how you dealt with the above (thoughts, emotions, behavior)?
- Can you describe any factors that you think influenced your reaction to the injury?

(C) Impact of injury (Recorded)

- Can you describe how the injury impacted your life?
- How did you cope with your injury? What kind of resources did you use?
- Can you explain any factors, or anyone, that you believe has helped in the process?
- Can you explain any factors, or anyone, that you believe has hindered the process?
- Looking back on the injury experience and the process, is there anything you would change?
- Is there anything else you would like to add to what you have already told me?

(D) Demographic information section (Not Recorded)

Name:
Pseudonym:
Gender:
Age:
Geographical location:
Sport played prior to injury occurrence:
Injury type:
Interview date:
Start time:
Finishing time:

(E) Debriefing (Not Recorded)

1. How are you feeling now?
2. Was the interview what you expected it to be?
3. Try to describe the emotions you had during the project. Were there any that surprised you, or disappointed you, or you felt relieved about etc.?
4. How do you think participation in this interview have (or have not) affected you?
5. Are there any questions/concerns I can help you with?