

**Transitioning out of Professional Sport: The Psychosocial  
Impact of Career-ending Non-Musculoskeletal Injuries among  
Male Cricketers from England and Wales**

Monna Arvinen-Barrow<sup>1</sup>, Kelsey DeGrave<sup>2</sup>, Stephen Pack<sup>3</sup>, and Brian Hemmings<sup>4</sup>

<sup>1</sup>University of Wisconsin-Milwaukee, USA, <sup>2</sup>Midwestern University, AZ, USA, <sup>3</sup>University of Hertfordshire, UK, <sup>4</sup>St Mary's University, UK

Corresponding Author:

Dr. Monna Arvinen-Barrow

Department of Kinesiology

PO Box 413

University of Wisconsin-Milwaukee

Milwaukee, WI 53201-0413, USA

arvinenb@uwm.edu

### **Abstract**

The purpose of this study was to document the lived experiences professional cricketers who had encountered a career-ending non-musculoskeletal injury. Three male cricketers each with over nine years of playing experience in professional cricket representing England and Wales in participated in retrospective in-depth semi-structured interviews. The Interpretative Phenomenological Analysis (Smith et al., 1996) revealed that at the time of the injury, the participants were at the “final stretch” of their professional sporting careers and that despite a range of unpleasant reactions to injury, all participants experienced a healthy career transition out of sport. To best prepare athletes for a life outside of sport, ensuring athletes have sufficient plans in motion early on in their careers can reduce external and internal stressors, which if not addressed, can increase sport injury risk and have a negative effect on athletes’ reactions post-injury.

*Keywords:* Interpretative Phenomenological Analysis, Forced Retirement from Sport, Qualitative Study

1     **Transitioning out of Professional Sport: The Psychosocial Impact of Career-ending Non-**  
2             **Musculoskeletal Injuries among Male Cricketers from England and Wales**

3             The process of transitioning out of sport can be a significant time in an athlete's life  
4 (Alfermann, 2000), and many factors will not only contribute to the reasons why an athlete  
5 transitions out of sport (e.g., Stambulova, 2003; Taylor & Ogilvie, 1994), but also how they cope  
6 with such transition. The process of career transition has typically been accompanied by changes  
7 in athletes' self-perception, emotions, and relationships with those around them (e.g., Morris,  
8 Tod, & Oliver, 2015)), and as such, are likely to have a significant impact on the athlete and their  
9 life beyond the transition.

10            Of the different causes of athletic retirement, it is likely that transition due to involuntary  
11 reasons (e.g., sport injury) might present greater negative difficulties to the athletes, as it is likely  
12 that the athletes may not be psychosocially "ready" to retire (e.g., Roberts & Davis, 2018).  
13 Indeed, injuries and health issues during career transition has been identified as a source of  
14 transitional difficulties (Park, Lavalley, & Tod, 2013). Unfortunately very little is known about  
15 the effects of injuries and other involuntary reasons on career transition process. Thus far, only  
16 22 studies have investigated voluntariness of retirement as a variable, and of those, eight have  
17 investigated athletes who had experienced a forced retirement such as an injury from sport  
18 (Arvinen-Barrow, Hurley, & Ruiz, 2017; Park et al., 2013), and it is not known how many of  
19 these studies included non-musculoskeletal injuries. In addition to then above, research  
20 investigating the psychosocial impact of career-ending sport injuries also appears to be sparse. It  
21 is known that psychological responses to a career-ending injury can be both positive and  
22 negative (Arvinen-Barrow et al., 2017; Stoltenburg et al., 2011), and that some of the negative

23 responses include alcohol abuse, anxiety, depression, fear, grief, identity loss, loneliness, loss of  
24 confidence, and suicide (e.g., Alfermann, Stambulova, & Zemaityte, 2004; Pearson & Petitpas,  
25 1990). It is also known that athletes with career-ending injuries have reported lower life  
26 satisfaction five to ten years following retirement (Kleiber & Brock, 1992) and significantly  
27 greater need for emotional and social adjustment to retirement (Lavalley, Grove, & Gordon,  
28 1997) than those who retired for non-injury reasons.

29         A recent study with three professional Irish rugby football union players (Arvinen-  
30 Barrow et al., 2017) found that following injury occurrence and throughout the transition  
31 process, the participants experienced a range of reactions toward the injury itself, as well as  
32 toward the process of transitioning out of sport. More specifically, the participants appraised  
33 their injuries as part of sport, as a source of psychophysiological and life stress, and as a loss.  
34 The participants also described how their injury rehabilitation and the transition out of sport  
35 process was a predominantly emotionally distressing, and disclosed how “talking to someone”  
36 had become an important way to cope and come to terms with their injury and subsequent career  
37 transition.

38         Thus far, statistics about the prevalence of career termination due to injury are also  
39 limited. What is known, is that injuries are the main reason why Finnish elite athletes retire from  
40 sport (Ristolainen, Kettunen, Kujala, & Heinonen, 2012). Injuries and health reasons are also the  
41 second highest reason of career termination for Danish elite athletes (Moesch, Mayer, & Elbe,  
42 2012). When combined with the fact that only a handful of research has investigated injuries as a  
43 reason for athletic retirement (for more details, see Park et al., 2013), more research is needed to

44 understand how injuries influence career transition and subsequent adjustment to life outside of  
45 sport in different sport and cultural contexts.

46 English cricket players have reported mental health problems during their careers (e.g.,  
47 Trescothick, 2009; cited in Roberts, Mullen, Evans, & Hall, 2015), and anecdotal evidence has  
48 suggested that cricket players have a higher suicide rate among its retired athletes in comparison  
49 to other sports (Professional Cricketer's Association, 2014; cited in Roberts et al., 2015). Thus,  
50 documenting and understanding the psychosocial impact of career ending injuries and the  
51 subsequent transition out of sport in this population is particularly important. However, empirical  
52 research into professional cricket is sparse, as to date, only one study has explored career  
53 transition experiences among professional cricketers (Roberts et al., 2015). In their qualitative,  
54 retrospective interviews with nine retired professional cricket players, Roberts et al. found that  
55 regardless of the voluntariness of the retirement, all of the participants reflected negatively on the  
56 termination of their career, with a sense of loss and resentment characterizing the post-retirement  
57 period. Since Roberts et al. did not specifically discuss the psychosocial impact injuries had on  
58 the retirement process, the current study aims to add to the Roberts et al study by documenting  
59 the career-ending non-musculoskeletal injury experiences among male cricketers from England  
60 and Wales. By taking a qualitative approach, the study afforded participants opportunity to share  
61 personal narratives regarding career-ending sport injury experiences they considered as  
62 important.

## 63 **Methods**

### 64 *Participants*

65 Consistent with Interpretative Phenomenological Analysis (IPA; Smith, 1996), using a  
66 personal contact, a snowball sampling method was used to approach professional male cricketers  
67 from England and Wales who had encountered a career-ending injury. The participants had  
68 substantial experiences of playing professional cricket ( $R = 9-13$  years) at the national and  
69 international level. All of the participants had experienced non-acute, non-musculoskeletal  
70 career-ending injuries.

### 71 *Interviews*

72 The semi-structured interview guide previously used with professional Irish rugby  
73 football union players (Arvinen-Barrow et al., 2017) was employed. Consistent with the IPA  
74 tradition, the interview questions (including the probing questions) were framed in an open-  
75 ended manner (Reid, Flowers, & Larkin, 2005). While serving a partial purpose of an icebreaker,  
76 the questions of “could you tell me about your involvement in sport” and “can you describe some  
77 of your most memorable moments you had while playing your sport” allowed the participants to  
78 give accounts of their elite rugby union career. These were followed by a questions related to the  
79 injury occurrence, post-injury reactions, and how they had dealt with the above. The final section  
80 was set out to examine the overall impact of the injury where participants were asked: “can you  
81 describe how the injury impacted your life”?

### 82 *Procedure*

83 Prior to participant recruitment, ethical approval was obtained from the primary  
84 researcher’s university. We used a snowball sampling method to recruit the participants. First,  
85 one of the authors contacted their personal contact via email and provided them with a print copy  
86 of the interview questions, consent form, and details of the study. If the potential participant

87 expressed interest in taking part, they were then contacted by another member of the research  
88 team who explained the details of the study, and upon verbal consent, scheduled a mutually  
89 convenient time and location for the interview (Patton, 2002). The third author, who has  
90 extensive experience in IPA interviews, conducted all of the one-to-one interviews that ranged  
91 between 30 and 50 minutes in length.

## 92 *Analysis*

93 Each interview was transcribed verbatim, and pseudonyms (Adam, Ben, and Charles)  
94 were added to ensure anonymity. The transcripts were then sent to the participants for review  
95 and approval. None of the participants commented on their transcript. The interview transcript  
96 for Adam was then randomly chosen to initiate the analysis. The analysis was conducted  
97 following the IPA guidelines (Smith, 1996; Smith, Flowers, & Larkin, 2009). Both the first and  
98 the second author read the transcripts several times to familiarize themselves with the data  
99 (reading and re-reading), and worked independently by first noting preliminary comments about  
100 interesting and significant content on the left hand margin. This was then followed by  
101 noting initial descriptive, linguistic, and conceptual comments on the right hand margin, which  
102 were reflections of the primary notations identified in the left hand margin, and allowed the  
103 development of the emergent themes.

104 The above procedure was then repeated for the other two transcripts. The  
105 transcripts were then compared to look for connections in emergent themes between the  
106 participants. The first and second author then compared their notations and emergent themes,  
107 and through a thorough discussion of the underlying meanings of the participants' accounts,  
108 abstraction, i.e., the development of the super-ordinate themes were then agreed upon and

109 supported with verbatim quotes from the transcripts. To ensure inter-rater reliability and to  
110 establish trustworthiness, the other two authors also commented on the emergent themes, made  
111 small modifications to the wording of the themes, and verified the final emergent super-ordinate  
112 themes. The themes were then sent to the participants for final verification. ; Taylor & Ogilvie,  
113 1994).

#### 114 *Cricket as part of life*

115 For the participants, cricket had formed a significant part of their life since childhood.  
116 The participants had fathers who had played county level cricket, and they recalled living in  
117 immediate vicinity to a cricket ground: “I’d spend all my, my time in my early years you know  
118 five or so into sort of 10 or 11 in the nets with my father” (Ben). He continues by saying:

119

120 As a young child we actually moved to a house where it was backed onto my father’s  
121 local club... umm so from the age of four or five umm... I would walk out the back gate  
122 and walk into... the nets... basically within 50 yards of the house... (Ben).

123

124 At the time of injury, cricket appeared to have been an embedded part of their life-space.  
125 Throughout their childhood, cricket had represented a family bonding process, and it had become  
126 a natural extension of childhood (a way of life). It is likely that this strong connection between  
127 cricket and life as a whole potentially had an influence over the next emergent theme: pressure to  
128 perform and be fit to play.

#### 129 *Pressure to be fit to play*



130           The participants described having felt pressured to consistently perform at a high level.  
131 They described how the pressure to perform was embodied in the need to maintain fitness, and at  
132 times to play through injuries: “there are times where people shouldn’t be out there playing for  
133 their own health and their own well-being... umm but as the season goes on, and pressure is on  
134 coaches to perform, pressure is on players to perform...” (Adam). The participants felt like their  
135 innate need to rest and recuperate had been over-ridden by what seemed to be considered as  
136 more immediate issues, and the priorities of others. Instead of giving themselves more time to  
137 recover, the participants had felt pushed into earlier return: “[the pressure came from] the  
138 coaches and physiotherapists in particular... and I never really gave myself a chance of getting  
139 my back strong...” (Adam).

140           When making decisions to return to play, all three participants described how their own  
141 judgment had been undermined, due to pressure to perform despite apparent discrepancy  
142 between physical and psychological readiness. Similarly to previous research (Arvinen-Barrow  
143 et al., 2017; Roberts et al., 2015), the participants had felt commodified and felt that ultimately  
144 professional cricket was a numbers game: “there is always the chance that there’s a 20-year old  
145 that can do the job for about half the price...” (Charles), making the participants very aware that  
146 they were replaceable should they fail to stay on top of their game, and thus creating a sense of  
147 internal and external conflicting demands.

148           It is likely that this perceived pressure had created an additional stressor for the  
149 participants prior to career-ending injury onset. Previous research has identified a strong link  
150 between chronic stress and illness (e.g., Mohd, 2008), previous history of stressors (i.e., major  
151 life events, daily hassles, and prior injuries), and sport injury (for more details, see Appaneal &

152 Habif, 2013). Given that the participants reported experiencing a number of musculoskeletal  
153 injuries immediately preceding their career-ending non-musculoskeletal injuries, it is likely that  
154 potential psychological and physical stress they had experienced had an influence on the injury  
155 occurrence, as well as post-injury reactions and recovery outcomes.

### 156 *Influence of injury on emotions*

157         Along with the apparent physical impact, the participants talked about the emotional  
158 impact of the injury on their lives. Consistent with existing theoretical conceptualization of  
159 psychological responses to sport injuries (Wiese-Bjornstal et al., 1998) and existing empirical  
160 evidence (Wiese-Bjornstal, 2014), these emotional responses varied, depending on the type,  
161 severity, and stage of injury. Initially, Adam and Ben both experienced negative emotional  
162 reactions: “yeah it, it was like I said it was, it was...a shock really and disbelief” (Ben). Ben’s  
163 recollections appeared to be painful as he described the struggle to make sense of conflicting  
164 circumstances: “I was obviously...disappointed of not playing anymore...was obviously,  
165 obviously hard to take.” For both Adam and Ben, the inability to be physically active, appeared  
166 to cause negative emotions: “you need to be off your feet... ..that’s really frustrating.” These  
167 feelings of frustration were shared by Adam, who also experienced negative emotions about not  
168 being able to play again: “I was as frustrated as anybody that I wasn’t playing the game I  
169 loved...and getting out there and playing for a team and, and doing all that sorts of things.”

170         In contrast, as Charles spent the first few weeks in a hospital bed being given continuous  
171 pain relief, he may have been spared the worst emotional reactions: “I wasn’t really in any  
172 position to think too deeply at all, all I could do, I was, I was a bit of a zombie, I was spaced out  
173 and I was on painkillers”. Charles’ temporary loss of a coherent self, and so temporal distortion,

174 seemed to have prevented him directly reaching a conclusion to things: “when there might have  
175 been a moment to realization about how bad it was I was probably out of it a bit.”

176         As the time progressed, the participants believed their injuries gave them a growth  
177 opportunity for new beginnings and allowed them to pursue other dreams (e.g., coaching,  
178 personal business ventures, further education), thus allowing the emergence of positive  
179 emotional responses. These findings are similar to those found in previous research (Arvinen-  
180 Barrow et al., 2017; Stoltenburg et al., 2011), in that initial reactions to injuries were generally  
181 negative, but on reflection, encountering a career-ending injury had given the participants an  
182 opportunity to move onto the next stage in their lives, thus the process was viewed as a positive  
183 experience.

#### 184 *Money, the main source of stress and worry*

185         The participants talked about numerous financial matters that arose as a result of injury  
186 that were perceived as a source of worry and stress. Charles mentioned that during his injury  
187 period, the only thing he really worried about was finances: “If I was to have...three or four  
188 months of un-pay...then of no pay then what would happen.” Ben was told that “you’re not fit  
189 to play with [club team], your contract’s gonna finish, uh...we can sort of ...you know...stop  
190 paying you next month” which he indicated was a major source of stress. Ben also experienced a  
191 period, where his contract had ended, but the insurance company would not compensate loss of  
192 earnings and recalled this as “probably the most stressful time not knowing where the next  
193 pennies would come from”. It seemed that Ben had been forced into a position whereby he had  
194 needed to consider his income and expenditure in minute detail. These worries and stressors  
195 were greatly alleviated by having an income protection insurance in place:

196

197 I might mention again but was something that would, would, that did become very  
198 evident as I started, as I was coming toward the end of my career was that I qualified for  
199 umm...an insurance policy...of income protection, which all of a sudden those financial  
200 worries...were gone. (Charles).

201

202 Having an income protection insurance in place before the injury also allowed time to  
203 retrain to another profession without major financial worry: “I expect those two years I had to  
204 have... sort of, insurance money if you like, to... retrain and... retrained in, in what I’m doing  
205 now and its... .. what I’m doing now is... is fantastic” (Ben).

206

207 These results are very similar to those found with the Irish rugby football union players  
208 (Arvinen-Barrow et al., 2017). Since the participants played professional cricket, at the time of  
209 the injury, their main livelihood was dependent on their ability to continue playing the sport.  
210 When coupled with the perception of pressure to perform and being fit to play, and their apparent  
211 singular sense of identity that had been further enforced since early childhood, inability to play  
212 and earn a living became a major stressor. It is likely that this created conflicting appraisals of  
213 their situation and insecurity. It seemed that the relief for such thoughts and assurance of security  
214 was achieved once insurance companies confirmed financial continuation, which allowed the  
215 participants to move forward with their lives outside of professional cricket.

216 *Keeping busy*

217           To help cope with negative emotions, the participants discussed how they needed to keep  
218 busy. Adam described having struggled to deal with an accumulation of daily stressors, so he  
219 started using swimming and yoga as way to deal with stress. Serving as a “form of escapism”,  
220 swimming and yoga allowed him to:

221  
222           Get me into a place where I could clear my mind, umm...get away from everything going  
223 on in the world, actually have an hour and a half to myself...and really listen to my body  
224 and listen to my thoughts, and listen to myself. (Adam)

225  
226           Adam’s focus on keeping busy post-injury was on ‘finding himself’, and re-evaluating  
227 his priorities:

228  
229           I have this going on with my cricket, I have this going on with my xxx, I have this going  
230 on with the possible end of my career but actually I had a very thorough process going  
231 on... of... addressing who I really was and what I wanted out of life...umm other than  
232 cricket and other than sport.

233  
234           In contrast, Ben and Charles had significant physical restrictions, and kept busy post-  
235 injury by moving swiftly into new professional activities. For Ben, it was important to keep  
236 moving forward as soon as possible “so that the grieving process was as, was as, was as short as  
237 possible.” Charles coped with the injury and by keeping himself busy planning his new  
238 company website. This retracted him from spending time thinking about the injury and its

239 consequences. Overall, and similar to their careers as an athlete, it appeared that the main coping  
240 strategy for all three participants was to keep busy, which in turn helped them to cope  
241 emotionally with both the injury and the realization of that their cricketing career was over.

### 242 *A blessing in disguise*

243 Despite initial negative emotions and stress over financial situation, the participants' felt  
244 that injury had eventually presented "a blessing in disguise." Before the injury onset, Adam had  
245 already considered the possibility of not being able to play another season:

246  
247 I think genuinely umm... even before my [injury] came on, I think I would've struggled  
248 to play another season of cricket because of my back so I was looking at either... another  
249 set of four injections umm cause you can have 12 in one year and then a more intense  
250 rehab period... I think I... I knew that the end the end of my career was basically gonna  
251 be this winter even before [the injury] came on... umm... and from a physical point of  
252 view I'd actually known deep, deep down that I'd not been right since November...

253  
254 Charles too had also anticipated an end to his career before the injury onset, and had  
255 taken stoic approach to his career as a whole:

256  
257 To be fair the, the year that right before I got injured, the very start of the season when,  
258 when I was injured but not playing...I was... thinking that this is the last year of my  
259 contract so there's the possibility that I could finish... but to be honest that's I'll always  
260 have, I won't say in the back of my mind somewhere in the middle of my mind if you

261           like, the fact that this will come to an end at some stage... because I knew I was always  
262           borderline.

263  
264           Despite the above, after recovering from the consequences of failed medical treatments,  
265 Charles appeared to delay the inevitable end by trying to play again: “I did play again in that  
266 season so umm... and then they, and then they didn’t renew my contract at the end of the  
267 summer.” It appeared that Charles was finding it difficult to let go of being a professional  
268 cricketer, thus emphasizing the role of cricket in his life, and the pressure to be fit to play.  
269 Charles stated that the lack of contract renewal was due to number of factors: his recent injury,  
270 number of previous injuries, and potentially lack of funding: “ I’m sure if I had not been ripping  
271 it up for the last three seasons they would have, they would... there would have been possibly  
272 another contract for a year.”

273           At the time of his injury, like Charles, Ben had one year left on his contract; and had no  
274 plans of retiring. However, he too described how previous injury had precipitated an inescapable  
275 change in self that had signaled an ending to his career:

276  
277           I had a really bad back... bad back injury in 2007 that never quite, I was never quite the  
278 same... I had a slipped disc, so I missed a year in 2007, so I never really had that... I was  
279 never quite the same bowler then, if you know what I mean.

280  
281           Partially because of the impact of his previous injury, he too, like the others had already  
282 started thinking about alternative plans for the future:

283

284 I have always wanted to be a coach you know... but... umm... I kind of thought to  
285 myself... before that January, that Christmas time... if I could play another four years...  
286 umm... which would, which would've meant this summer, next summer would have  
287 been my last year... I think that would be a... good effort in that time, to make sure I got  
288 all my coaching awards and when I do finish, then there is an opportunity to go into  
289 coaching but... it got all kind of fast forwarded a bit...

290

291 Although the injury had accelerated Ben's post-professional cricket career plans, he saw  
292 this transition as fateful:

293

294 If I try to reflect back now, and look at the whole situation I... it's almost in a kind a  
295 roundabout way... it was a blessing in disguise because... I only had, I think, I only had  
296 one year on my contract then left... so... it could've been worse case I had a bad year and  
297 then... I'd then ended up with no insurance, no chance to retrain, and being in that  
298 situation... of not knowing what to do anyways, so it is kind of, and, and if I look back at  
299 it, well, maybe you know it happened for a reason.

300

301 In essence, although initially upon sustaining their injuries, none of the participants  
302 wanted to retire from their sport, over time, they appeared to displayed signs of early acceptance  
303 of what had happened. Upon reflection, they also perhaps viewed their injuries as a legitimate



304 'release' from pressure, and as such, retiring due to injury was potentially more preferable than  
305 having to make a decision to retire due to age, deselection, or declining performance.

### 306 *The importance of career planning*

307           What emerged as a dominant theme and probably the most influential factor affecting  
308 their career transition, was the existence of post-professional cricket career plans to ensure future  
309 outside of sport with a purpose. The presence of pre-retirement planning, and the participants  
310 own cognitive appraisals of its importance during the transition process undoubtedly  
311 underpinned successful career transition for the participants.

312           Charles had a Bachelor's degree in sport and exercise science, which he saw as having a  
313 positive impact on his cricket, and he had also set up a business shortly before his career-ending  
314 injury, and spent a considerable amount of time setting it up because "just on the off chance it  
315 [injury] may have happened."

316           Ben had planned for his post-professional cricket career by obtaining a Masters' degree  
317 which he had just finished before the injury: "the moment I wrote my...my last sentence and got  
318 it published, or got it given to the university...within four weeks then I had I had this injury."  
319 He also knew that he wanted to be a coach, and had planned to take coaching qualifications over  
320 the next few years; however these plans were accelerated significantly due to his injury.

321           Adam had also started planning for future before the onset of the injury:

322

323           ...some very uhh... precise and thorough and detailed plans to help me move forward

324           umm so that I can actually... confidently umm deal with the end of my career and then

325 also... umm move forward and start to think about what it is I want to develop as a  
326 second career.

327

328 More specifically, Adam had started engaging in regular leadership coaching sessions for  
329 two very specific reasons: “One was that he was nothing to do with cricket and the other that he  
330 was nothing to do with sport...” with aim of getting help in “redirecting your career from one  
331 thing to another.”

332 These results support previous research conducted with professional cricketers (Roberts  
333 et al., 2015) and rugby football union players (Arvinen-Barrow et al., 2017), but are in contrast  
334 to those found with the collegiate athletes (Stoltenburg et al., 2011). This is not surprising as the  
335 participants in Stoltenburg et al. study were collegiate athletes, and therefore at the start of their  
336 elite/professional careers, whereas in our study, they were professional athletes who had already  
337 had a long professional career. In the Stoltenburg et al. study only two had initiated alternative  
338 career plans prior to getting injured. What is consistent between the two studies is the notion that  
339 the athletes’ who had actively prepared for life after sport, experienced a more positive transition  
340 than those who had not developed an alternate plan.

341 The participants also perceived these post-professional cricket career plans as a vital part  
342 of any professional athletes’ career. The participants felt that every professional athlete should  
343 understand that the process of career transition is an ongoing process for which athletes should  
344 be planning, and nurturing, throughout their career. For Adam, this process was vital in terms of  
345 holistic personal development and the avoidance of a unidimensional self:

346

347 Growing yourself as an individual and as a person ...umm you can't underestimate the  
348 power of what growing yourself does in many different aspects of your life... I think [it]  
349 will then benefit your sport, and benefit any transition you have to go through in the  
350 future... (Adam)

351  
352 Ben felt that athletes who had "really, really looked at their professional careers outside  
353 of the professional game..." would be the "ones that cope a lot better with that than the guys who  
354 haven't..." In his opinion, it is the planning for life after sport that is the key in helping players  
355 to cope with possible career-threatening injuries:

356  
357 I just fear for those guys who...who haven't got a... career outside to finish, how they  
358 cope you know... I'm guessing they might be stressed out a little bit but how, how, they  
359 would cope and the stressors that they, they would... psychologically... would, would,  
360 would, have if it happened to them, so I think that's a my overall thought would be a  
361 huge aid... to people who come across career-threatening injuries knowing they've got  
362 something else to move into. (Ben)

363  
364 Charles also stated: "My advice would be to make sure you've got options umm, that you  
365 take a step back and make sure that you've got something to fall back on." He too believed that  
366 the "real struggle that players have with injury is... born out of the real worry and concern about  
367 what if this... what if I have to stop playing cricket umm..." and this is typically caused by one  
368 of two things: (1) the player is "so in love with the sport that they umm... they can't cope

369 without it..." or (2) the player is "clinging onto this career because you have to, because you  
370 haven't got any other options", both of which can be seen as fragile paths to follow as a  
371 professional athlete.

### 372 *Social support and successful coping*

373 A big part of successful career transition was the participants' perception and satisfaction  
374 with the social support during the injury process. Consistent with previous research (Arvinen-  
375 Barrow et al., 2017; Carson & Polman, 2008; Podlog & Eklund, 2007; Roberts et al., 2015;  
376 Stoltenburg et al., 2011), the most commonly identified sources of support came from family and  
377 close friends:

378  
379 If it had been different if my if my close friends had not cared, or my family would have  
380 not cared, then it would've been a bit different but, I knew...I'm very, very lucky I've got  
381 very close family around. (Charles)

382  
383 I had a strong group of friends around me...who, a lot, a lot of my good friends actually  
384 work at the club... and I played with for...you know, I think that that helped, I had  
385 played with twelve years at the time... and they were really supportive and, and really  
386 helpful. (Ben)

387  
388 Only Ben felt that his cricket club had been a positive support system for him. He felt his  
389 club had looked after him by helping his transition into a new career as a coach, while also  
390 recognizing this may not be a standard practice for everyone: "I was sort one of the lucky ones

391 who, who got looked after really well by...the people that were at the club at the time.” For Ben,  
392 the club provided the needed outlet to keep busy, and he felt very thankful: “[I] kinda owe a lot  
393 to them [the club], it’s giving me the opportunity to...develop over the last two and a half years  
394 to what I’m doing full time now.”

395 Adam and Charles felt the opposite. Adam discussed how some of the club coaches and  
396 physiotherapist had been questioning the severity of his injury, and explained that such practice  
397 was part of the “short-termism of...umm... success and failure... and... pushing people to their  
398 absolute limit...” For Adam, some of the conversations he had with coaches and the  
399 physiotherapist were “extremely difficult to have because...umm questioning my character more  
400 than anything in regards to what I was actually feeling...umm and...umm...that period of time  
401 was one of the most difficult.” For Charles, the club had not been a real source of support during  
402 the process: “they were all busy doing their little things you know...I wasn’t relying, relying on  
403 them anyway for support from them, nor did I expect it, so much so, so they didn’t hinder it, they  
404 didn’t massively support it.”

405 In contrast, and similarly to the Irish rugby football union players (Arvinen-Barrow et al.,  
406 2017), the participants mentioned receiving helpful support from the England and Wales Cricket  
407 Board (ECB) and/or County Cricket Clubs in terms of providing career development guidance  
408 before and after the injury. For example, Ben talked about how he was helped by a development  
409 manager for the ECB with a history of similar career transition. Adam stated:

410

411 We have umm...people within the counties that offer advice in terms of  
412 umm...performance life as well, and they are called personal development and welfare

413 people and I'd always on, on or off the field used these people and spoken to them  
414 about...possible future careers.

415  
416 Overall, the participant deemed the organizational level support as important after the  
417 injury onset, and perceived it as instrumental in the recovery process, a service that cricketers in  
418 previous research felt was "ineffective" and "undirected" (Roberts et al., 2015, p.940). Such  
419 support has however been highlighted as important in the literature (Alfermann, 2000; Arvinen-  
420 Barrow et al., 2017), to ensure an athlete is developed holistically as a person and not just as a  
421 player throughout out their athletic career.

422 Consistent with the IPA tradition (Caldwell, 2008; cited in Pringle, Drummond,  
423 McLafferty, & Hendry, 2011, p. 21), the results make a contribution to theory by supporting the  
424 existing explanatory career transition models (e.g., Stambulova, 2003; Taylor & Ogilvie, 1994).  
425 The results revealed two distinct developmental experiences (cricket as part of life, and history  
426 of previous injures that led up to the career-ending injury) and a major tertiary contribution  
427 (financial worry) which were resultant of the cause of retirement. Consistent with existing  
428 models (Stambulova, 2003; Taylor & Ogilvie, 1994), the results also highlighted three main  
429 resources (coping skills, social support and pre-retirement planning) as significant factors  
430 influencing the quality of retirement. However, based on the results, several themes related to  
431 the psychosocial impact of injuries (i.e., specific interaction between post-injury thoughts,  
432 emotions, and behaviors) also emerged from the data that are not explicitly accounted for in the  
433 explanatory career transition models (Stambulova, 2003; Taylor & Ogilvie, 1994).

434 Over the past three decades, interest in understanding psychosocial aspects of sport  
435 injuries has risen significantly (e.g., Brewer & Redmond, 2017). Since the most widely accepted  
436 psychology of injury model (Wiese-Bjornstal et al., 1998) was published in the late 1990's, it is  
437 no surprise that existing explanatory career transition models (Stambulova, 2003; Taylor &  
438 Ogilvie, 1994) may not be adept to explain the bi-directional cyclical process of cognitive  
439 appraisals, emotional, and behavioral responses that result following a sport injury. Our results  
440 revealed that the participants in this study experienced a number of cognitive appraisals,  
441 emotional, and behavioral responses following the injury, influenced by a range of personal and  
442 situational factors. This is consistent with the integrated model of psychological response to the  
443 sport injury and rehabilitation process (Wiese-Bjornstal et al., 1998), and similar to research  
444 findings from studies documenting the psychosocial impact of career-ending injuries (Arvinen-  
445 Barrow et al., 2017; Stoltenburg et al., 2011) and non-career-ending injuries (e.g., Arvinen-  
446 Barrow, Massey, & Hemmings, 2014; Clement, Arvinen-Barrow, & Fetty, 2015; Wiese-  
447 Bjornstal, 2014).

448 From a clinical perspective, there are two key aspects to note. First, from a psychosocial  
449 perspective, for the current participants, the process of reactions to injury, rehabilitation, and  
450 recovery appears to be similar to non-career-ending injuries. During this process, an athlete will  
451 experience a range of thoughts, emotions, and behaviors, influenced by number of factors that  
452 may be unique to the individual athlete in question, and will eventually have an impact on the  
453 overall outcome (Brewer & Redmond, 2017). Second, neither the explanatory models of career  
454 transition (Stambulova, 2003; Taylor & Ogilvie, 1994) nor the integrated model of psychological  
455 response to the sport injury and rehabilitation process (Wiese-Bjornstal et al., 1998) alone are

456 sufficient enough to explain the process of transition out of professional sport due to career-  
457 ending sport injury. By combining the conceptualizations, the sport psychology professionals  
458 working with the injured athletes post-injury are able to gain greater insights into (a) how the  
459 athlete is reacting to the injury, rehabilitation, and its outcome, and (b) what factors need to be  
460 taken into account to ensure successful career transition out of professional sport.

461         The results of this study highlight the importance of understanding athletes' psychosocial  
462 reactions to the injury and the career transition process. While both occur simultaneously, it is  
463 likely that these reactions may not always align. For example, an athlete may accept the injury,  
464 but fails to accept the outcome of the injury. It is for this reason why clinicians working with  
465 athletes experiencing a career-ending injury need to ensure any planned interventions and  
466 required coping resources are structured and tailored to meet individual needs (e.g., Alfermann &  
467 Stambulova, 2007). By recognizing the need to address psychosocial reactions to injury along  
468 with those associated with the transition process, will ultimately leading to more successful  
469 coping with the injury, and the overall transition process. For example, systematic goal setting  
470 has been identified as one of the most popular strategies used in sport for performance  
471 enhancement (Zakrajsek & Blanton, 2017). Research has also found goal setting as important  
472 tool in helping athletes cope well with injuries (for more details on goal setting during  
473 rehabilitation, see Arvinen-Barrow & Hemmings, 2013), and the importance of planning is seen  
474 as an important coping strategy during career transition regardless of the cause of retirement  
475 (e.g., Grove, Lavalley, & Gordon, 1997). In essence, athletes like to plan, and work towards set  
476 goals and targets in a range of sport-related situations. By ensuring an athlete has an appropriate  
477 pre-retirement plan and involving all key stakeholders in the process of planning early on in their



478 professional career can be of benefit in several ways: the athlete is likely to feel more cared for  
479 by those around them, more prepared for the future financially, and potentially feel like their  
480 identity is not solely about being an athlete. As such, they may be less likely to push themselves  
481 over the safe limit of play (play with injuries or return back to activity too soon), and to feel  
482 pressured to play for financial or self-fulfilling identity reasons. By doing so, many stressors  
483 outside of the sporting context can be minimized, and minimizing stressors can in turn reduce the  
484 risk of sport injury (Williams & Andersen, 1998).

485         Using IPA as a methodology for the study allowed the emergence of themes that go  
486 beyond the scope of the existing career transition literature, and by adopting a small sample, it  
487 also allowed greater understanding of participants own personal accounts of their process.  
488 Through the process of engaging in a two-stage interpretation process where we as researchers  
489 have (1) given voice to the participants, while (2) also making an attempt to interpret the ways in  
490 which the participants have made sense of their own career-ending injury experience, IPA  
491 provides flexible means to conduct phenomenological research which privileges the participant.  
492 With the small, homogenous sample however, the results are very likely to t be very sport-  
493 specific, and as such, may only provide in-depth insights into selected sample of UK professional  
494 cricketers' experiences. This, despite being a limitation of the research, can also be its strength.  
495 One of the characteristics of IPA is that it allows the researchers to consider the results in terms  
496 of "theoretical transferability rather than empirical generalizability" (Smith, Flowers, & Larkin,  
497 2009), and as such, seeking generalizable findings was not the aim of the study. That said, in  
498 order to understand the career-ending injury process amongst professional athletes' further,  
499 research should therefore replicate similar study design within range of team and individual

500 sports. It would also be advisable to gain an understanding of psychosocial impact of career-  
501 ending injury experiences for men and women, at various stages of their careers, and in range of  
502 sport and other cultural contexts.

### 503 **Conclusions**

504 It appeared that the participants appraised their career transition as successful (as defined  
505 by Alfermann & Stambulova, 2007). Throughout the interviews, the participants explained how  
506 they had experienced a number of psychosocial reactions to their injuries: cognitive appraisals  
507 (e.g., financial worry), emotional (e.g., frustration), and behavioral (e.g., keeping busy)  
508 responses. These responses were influenced by range of pre-injury (i.e., role of cricket in life,  
509 perceived pressure to perform and be fit to play), injury (i.e., severity, type), and post-injury  
510 (e.g., income protection insurance, social support) factors. It was this interaction between the  
511 psychosocial responses and factors affecting them that ultimately lead to the participants  
512 appraising the injury and its resultant situation as a ‘blessing in disguise’, allowing them to focus  
513 on activities and careers outside of professional sport. Such stoic attitude towards the injury  
514 could be partly explained by their previous history of injuries, and their own acknowledgement  
515 of decreased performance even before the injury diagnosis. The results of this study also  
516 reiterate the importance of pre-retirement planning and social support when coping with a career-  
517 ending injury and subsequent transition out of professional sport. Using both career transition  
518 and psychosocial sport injury models can help us better understand the transition process from  
519 both the injury and the retirement perspective, and as such, better help prepare the athletes to a  
520 life outside of professional sport.

**References**

- 521  
522 Alfermann, D. (2000). Causes and consequences of sport career termination. In D. Lavallee & P.  
523 Wylleman (Eds.), *Career transition in sport: International perspectives* (pp. 45-58).  
524 Morgantown, WV: Fitness Information Technology.
- 525 Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In: G.  
526 Temenbaum & R.C. Eklund (Eds.). *Handbook of sport psychology* (3rd. ed., pp. 712-  
527 736). New York, NY: Wiley.
- 528 Alfermann, D., Stambulova, N., & Zemaityte, A. (2004). Reactions to sport career termination:  
529 A cross-national comparison of German, Lithuanian, and Russian athletes. *Psychology of*  
530 *Sport & Exercise*, 5(1), 61-75. doi:[http://dx.doi.org/10.1016/S1469-0292\(02\)00050-X](http://dx.doi.org/10.1016/S1469-0292(02)00050-X)
- 531 Appaneal, R. N., & Habif, S. (2013). Psychological antecedents to sport injury. In M. Arvinen-  
532 Barrow & N. Walker (Eds.), *Psychology of sport injury and rehabilitation* (pp. 6-22).  
533 Abingdon, UK: Routledge.
- 534 Arvinen-Barrow, M., & Hemmings, B. (2013). Goal setting in sport injury rehabilitation. In M.  
535 Arvinen-Barrow & N. Walker (Eds.), *Psychology of sport injury and rehabilitation* (pp.  
536 56-70). Abingdon, UK: Routledge.
- 537 Arvinen-Barrow, M., Hurley, D., & Ruiz, M. C. (2017). Transitioning out of professional sport:  
538 The psychosocial impact of career-ending injuries among elite Irish rugby football union  
539 players. *Journal of Clinical Sport Psychology*, 10(1).  
540 doi:<https://doi.org/10.1123/jcsp.2016-0012>
- 541 Arvinen-Barrow, M., Massey, W. V., & Hemmings, B. (2014). Role of sport medicine  
542 professionals in addressing psychosocial aspects of sport-injury rehabilitation:

- 543 Professional athletes' views. *Journal of Athletic Training*, 49(6), 764–772.  
544 doi:<http://dx.doi.org/10.4085/1062-6050-49.3.44>
- 545 Brewer, B.W., & Redmond, C. (2017). *Psychology of sport injury*. Champaign, IL: Human  
546 Kinetics.
- 547 Carson, F., & Polman, C. J. (2008). ACL injury rehabilitation: A psychological case study of a  
548 professional rugby union player. *Journal of Clinical Sport Psychology*, 2(1), 71-90.  
549 doi:<http://dx.doi.org/10.1123/jcsp.2.1.71>
- 550 Clement, D., Arvinen-Barrow, M., & Fetty, T. (2015). Psychosocial responses during different  
551 phases of sport injury rehabilitation: A qualitative study. *Journal of Athletic Training*,  
552 50(1), 95-104. doi:<http://dx.doi.org/10.4085/1062-6050-49.3.52>
- 553 Grove, R. J., Lavallee, D., & Gordon, S. (1997). Coping with retirement from sport: The  
554 influence of athletic identity. *Journal of Applied Sport Psychology*, 9(2), 191-203.  
555 doi:<http://dx.doi.org/10.1080/10413209708406481>
- 556 Kleiber, D. A., & Brock, S. C. (1992). The effect of career-ending injuries on the subsequent  
557 well-being of elite college athletes. *Sociology of Sport Journal*, 9(1), 70-75.  
558 doi:<http://dx.doi.org/10.1123/ssj.9.1.70>
- 559 Lavallee, D., Grove, R. J., & Gordon, S. (1997). The causes of career termination from sport and  
560 their relationship to post-retirement adjustment among elite-amateur athletes in australia.  
561 *Australian Psychologist*, 32(2), 131-135.  
562 doi:<http://dx.doi.org/10.1080/00050069708257366>

- 563 Moesch, K., Mayer, c., & Elbe, A-M. (2012). Reasons for career termination in danish elite  
564 athletes: investigating gender differences and the time-point as potential correlates. *Sport*  
565 *Science Review*, 21(5-6), 49-69.
- 566 Mohd, R. S. (2008). Life event, stress and illness. *Malaysian Journal of Medical Sciences*, 15(4),  
567 9-18.
- 568 Morris, R., Tod, D., & Oliver, E. (2015). An analysis of organizational structure and transition  
569 outcomes in the youth-to-senior professional soccer transition. *Journal of Applied Sport*  
570 *Psychology*, 27, 216-234. doi:<http://dx.doi.org/10.1080/10413200.2014.980015>
- 571 Park, S., Lavallee, D., & Tod, D. (2013). Athletes' career transition out of sport: A systematic  
572 review. *International Review of Sport and Exercise Psychology*, 6(1), 22-53.  
573 doi:<http://dx.doi.org/10.1080/1750984X.2012.687053>
- 574 Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd. ed.). London, UK:  
575 Sage.
- 576 Pearson, R. E., & Petitpas, A. J. (1990). Transitions of athletes: Developmental and preventive  
577 perspectives. *Journal of Counseling & Development*, 69(1), 7-10.  
578 doi:<http://dx.doi.org/10.1002/j.1556-6676.1990.tb01445.x>
- 579 Podlog, L., & Eklund, R. C. (2007). The psychosocial aspects of a return to sport following  
580 serious injury: A review of the literature from a self-determination perspective.  
581 *Psychology of Sport & Exercise*, 8(4), 535-566.  
582 doi:<http://dx.doi.org/10.1016/j.psychsport.2006.07.008>

- 583 Pringle, J., Drummond, J., McLafferty, E., & Hendry, C. (2011). Interpretative  
584 phenomenological analysis: A discussion and critique. *Nurse Researcher*, 18(3), 20-24.  
585 doi:<http://dx.doi.org/10.7748/nr2011.04.18.3.20.c8459>
- 586 Reid, K., Flowers, P., & Larkin, M. (2005). Exploring lived experiences. *The Psychologist*, 18,  
587 20-23.
- 588 Reynolds, M. J. (1981). The effects of sports retirement on the job satisfaction of the former  
589 football player. In S. L. Greendorfer & A. Yiannakis (Eds.), *Sociology of sport: Diverse*  
590 *perspectives* (pp. 127-137). West Point, NY: Leisure Press.
- 591 Ristolainen, L., Kettunen, J., Kujala, U.M., & Heinonen, A. (2012). Sport injuries as the main  
592 cause of sport career termination among Finnish top-level athletes. *European Journal of*  
593 *Sport Science*, 12(3), 274-283 doi: <https://doi.org/10.1080/17461391.2011.566365>
- 594 Roberts, C-M., & Davis, M.O. (2018). Career transition. In: J. Taylor (Ed.). *Assesment in*  
595 *applied sport psychology*. (pp. 213-233). Champaign, IL: Human Kinetics.
- 596 Roberts, C.-M., Mullen, R., Evans, L., & Hall, R. (2015). An in-depth appraisal of career  
597 termination experiences in professional cricket. *Journal of Sports Sciences*, 33(9), 935-  
598 944. doi:<http://dx.doi.org/10.1080/02640414.2014.977936>
- 599 Rosenberg, E. (1984). Athletic retirement as social death: Concepts and perspectives. In N.  
600 Theberge & P. Donnelly (Eds.), *Sport and the sociological imagination* (pp. 245-258).  
601 Fort Worth, TX: Texas Christian University Press.
- 602 Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative  
603 phenomenological analysis in health psychology. *Psychology and Health*, 11(2), 261-  
604 271. doi:<http://dx.doi.org/10.1080/08870449608400256>

- 605 Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis:*  
606 *Theory, method and research*. London: Sage.
- 607 Stambulova, N. (2003). Symptoms of a crisis-transition: A grounded theory study. In: N.  
608 Hassmén (Ed). *Svensk idrottspsykologisk förening* (pp. 97–109). Örebro, Sweden: Örebro  
609 University Press.
- 610 Stoltenburg, A. L., Kamphoff, C. S., & Lindstrom Bremer, K. (2011). Transitioning out of sport:  
611 The psychosocial effects of collegiate athletes' career-ending injuries. *Athletic Insight*,  
612 *11*(2), 1-11.
- 613 Taylor, J., & Ogilvie, B. (1994). A conceptual model of adaptation to retirement among athletes.  
614 *Journal of Applied Sport Psychology*, *6*(1), 1-20.  
615 doi:<http://dx.doi.org/10.1080/10413209408406462>
- 616 Weinberg, R. S., & Gould, D. (2015). *Foundations of sport and exercise psychology* (6th ed.).  
617 Champaign, IL: Human Kinetics.
- 618 Wiese-Bjornstal, D. M. (2014). Reflections on a quarter-century of research  
619 in sports medicine psychology. *Revista de Psicología del Deporte*, *23*(2), 411-421.
- 620 Wiese-Bjornstal, D. M., Smith, A. M., Shaffer, S. M., & Morrey, M. A. (1998). An integrated  
621 model of response to sport injury: Psychological and sociological dynamics. *Journal of*  
622 *Applied Sport Psychology*, *10*(1), 46-69.  
623 doi:<http://dx.doi.org/10.1080/10413209808406377>
- 624 Williams, J. M., & Andersen, M. B. (1998). Psychosocial antecedents of sport injury: Review  
625 and critique of the stress and injury model. *Journal of Applied Sport Psychology*, *10*, 5-  
626 25. doi:<http://dx.doi.org/10.1080/10413209808406375>

627 Zakrajsek, R.A. & Blanton, J.E. (2017). Evaluation of psychological interventions in sport and  
628 exercise settings. In: O. Braddick (Ed.). *Oxford Research Encyclopedia of Psychology*.  
629 Oxford, England. doi: 10.1093/acrefore/9780190236557.013.223  
630  
631