

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

Manuscript accepted for publication in *Qualitative Research in Sport, Exercise and Health*.

This version of the article may not exactly replicate the final version that is published in the journal and is not the copy of record. The final article can be found using the doi:

10.1080/2159676X.2016.1261364

Accepted Manuscript

26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50

Olympic and International Level Sports Coaches' Experiences of Stressors, Appraisals, and  
Coping

Faye F. Didymus

Leeds Beckett University, United Kingdom

Author Note

Faye F. Didymus; Institute for Sport, Physical Activity, and Leisure; Leeds Beckett  
University; United Kingdom.

This work was supported by a grant from the Early Career Researcher Development  
Scheme at Leeds Beckett University.

Correspondence concerning this article should be addressed to Faye F. Didymus,  
Carnegie Research Institute, Fairfax Hall, Leeds Beckett University, Headingley Campus,  
Leeds, LS6 3QS, United Kingdom. Telephone: 4411-3812-6709. E-mail:  
F.Didymus@leedsbeckett.ac.uk

51 Abstract

52 The aim of this study was to use the cognitive-motivational-relational theory (CMRT) of  
53 stress and emotions as a lens to explore psychological stress with Olympic and international  
54 level sports coaches. In particular, the study aimed to explore situational properties of  
55 stressors and coaches' appraisals to address voids in the published literature. Guided by my  
56 constructionist epistemological position that contains traces of post-positivism and my  
57 relativist view of reality, I conducted semi-structured interviews with six women and nine  
58 men. I applied abductive logic during latent thematic analyses to organise and analyse the  
59 data. The findings suggest that the coaches experienced many stressors that related to ten  
60 themes (e.g., athlete concerns, performance) and that these stressors were underpinned by  
61 seven situational properties (e.g., ambiguity, imminence, novelty). The coaches reported  
62 challenge and threat appraisals and, to a lesser extent, benefit and harm/loss appraisals. The  
63 ways of coping that were discussed with the coaches related to seven families of coping (e.g.,  
64 dyadic coping, support seeking) that each play a different role in adaptive processes.  
65 Collectively, the findings shed new light on the explanatory potential of situational properties  
66 and appraisals and go some way toward understanding coaches' diverse experiences. The  
67 CMRT was a useful framework for understanding high-level coaches' stress transactions and,  
68 thus, could be used in future research with this unique population. Coaches, practitioners, and  
69 researchers should attend to the ways that coaches appraise and cope with stressors to  
70 facilitate their adaptation to the potentially stressful nature of coaching at the highest levels.

71 *Keywords:* appraising, elite sport, Lazarus, NVivo, qualitative

72

73

74

75

76 Olympic and International Level Sports Coaches' Experiences of Stressors, Appraisals, and  
77 Coping

78 The potentially stressful nature of sports coaching at Olympic and international levels  
79 has been well documented (e.g., Gould *et al.* 2002, Olusoga *et al.* 2009, 2010, 2012). Some  
80 of the reasons why coaching at the highest level can be a stressful occupation relate to the  
81 multiple roles that coaches are required to fulfil (Lyle 2002, Miller *et al.* 2002), the pressure  
82 to perform that coaches experience in relation to their own performance and that of the  
83 athletes they work with (Gould *et al.* 2002), the long working hours that coaches often endure  
84 (Knight *et al.* 2013), and the volatile nature of the elite coaching profession (Hill and  
85 Sotiriadou 2016). These factors make coaching a unique occupation and differentiate elite  
86 level coaching from other levels of competitive involvement. Despite some knowledge of the  
87 reasons why coaching can be stressful and a consensus that understanding stress with sports  
88 coaches is vitally important for performance and personal reasons (e.g., Fletcher and Scott  
89 2010), coaches' stress experiences are not yet fully understood (Thelwell *et al.* 2016).

90 Psychological stress, which is an umbrella term that encompasses stressors,  
91 appraisals, coping, and strain, can be defined as a 'relationship between the person and the  
92 environment that is appraised by the person as taxing or exceeding his or her resources and  
93 endangering his or her well-being' (Lazarus and Folkman 1984, p. 19). This definition is  
94 based on a relational conceptualisation of stress, which was central to Lazarus' (1999)  
95 cognitive-motivational-relational theory (CMRT) of stress and emotions. According to this  
96 theory, stressors, situational properties (e.g., imminence, duration, timing in relation to life  
97 cycle), appraising, and coping are closely related concepts that are influential in individuals'  
98 experiences of stress. The CMRT describes stressors as environmental demands that have the  
99 potential to be appraised as psychologically noxious and highlights the important role of  
100 situational properties of stressors in determining individuals' appraisals. The theory defines

101 appraising, which is the verb form of the noun appraisal, as ‘the evaluative process by which  
102 the relational meaning is constructed’ (Lazarus 1999, p. 13). This concept is fundamentally  
103 different to outcomes of stress (e.g., changes to wellbeing and or performance), which are  
104 thought to arise from an inability to cope. According to the CMRT, coping refers to dynamic  
105 cognitive and behavioural efforts that aim to manage demands that are appraised as taxing or  
106 exceeding the individual’s resources (see also Lazarus and Folkman 1984). Some of the  
107 concepts described here (i.e., stressors, coping) have been explored as individual components  
108 of sports coaches’ stress experiences (see e.g., Levy *et al.* 2009, Olusoga *et al.* 2009) but the  
109 relevance of the CMRT to the context of coaching is unknown. This is surprising when  
110 considering that the CMRT is widely used in different contexts, including sport (e.g., Uphill  
111 and Jones 2007) and experimental psychology (e.g., Smith and Lazarus 1993), and when  
112 keeping the benefits of theoretically informed research (e.g., advancing understanding of  
113 complex phenomena) in mind.

114 In the sports coaching literature, stress has often been explored in relation to burnout  
115 (see, for a review, Schaffran *et al.* 2016) and, as alluded to, some researchers have reported  
116 lists of stressors that coaches experience (e.g., Wang and Ramsey 1998, Olusoga *et al.* 2009)  
117 and the coping strategies that they use (e.g., Levy *et al.* 2009). Such lists are useful for  
118 developing preliminary understanding of coaches’ experiences but they hold limited practical  
119 significance and do not provide comprehensive insight to coaches’ transactions with their  
120 environment. This dearth of comprehensive knowledge is problematic because unexplored  
121 components of coaches’ stress experiences (e.g., situational properties of stressors,  
122 appraisals) can play pivotal roles in functioning and adaptation (Lazarus 1999). In addition to  
123 list-like overviews of stressors and coping strategies that have often been reported  
124 independently of each other, researchers have suggested that coaches perceive ‘staying cool  
125 under pressure’ to be an important factor in their coaching effectiveness (Gould *et al.* 2002)

126 and that they view coping as important for successful coaching at the Olympic level (Olusoga  
127 *et al.* 2012). Using a psychophysiological lens, Hudson *et al.* (2013) reported that coaches'  
128 alpha-amylase activity, subjective stress, arousal, and unpleasant emotions were higher on  
129 competition days when compared to noncompetition days. Collectively, this research  
130 provides insight to individual components of coaches' stress transactions and suggests that  
131 coaches' must be able to effectively cope with stress, particularly on competition days, to  
132 maintain their performance.

133 In addition to studies that have reported coaches' perceptions of their stress  
134 transactions, some scholars have explored the links between coaches' and athletes'  
135 experiences. For example, Hardy (1992) examined athletes' stress experiences and found that  
136 social evaluation by the coach was a noteworthy stressor for athletes. Other more recent  
137 articles (see e.g., Parent *et al.* 2014, Alsentali and Anshel 2015) support the suggestion that  
138 athletes can experience numerous stressors that relate to their coach. In a study that explored  
139 athletes' perceptions of coaches' stress experiences, Thelwell *et al.* (2016) found that both the  
140 coaching environment and athletes themselves were negatively affected by coaches'  
141 experiences of stress. Other researchers (e.g., Olusoga *et al.* 2010) have explored the links  
142 between coach and athlete stress experiences from the point of view of the coach, rather than  
143 the athlete, and found that coaches' perceived that their negative responses to stress could be  
144 projected onto athletes. With these findings in mind and when considering the potential  
145 ramifications of coaches' stressful transactions for athletes and coaches, further research that  
146 aims to understand how coaches cope with stress is warranted.

147 When exploring coping, researchers (e.g., Levy *et al.* 2009) have often used broad,  
148 structural coping distinctions (e.g., problem-focused, emotion-focused, avoidance coping)  
149 that are focused on the intention and function of coping efforts (Lazarus and Folkman 1984)  
150 to classify ways of coping. However, other researchers (e.g., Skinner *et al.* 2003, Didymus

151 and Fletcher 2014) have criticised these classifications and proposed a system that, in line  
152 with the CMRT, views coping as an adaptive process (Skinner *et al.* 2003). This way of  
153 classifying coping is based on a hierarchal system of action types that spans the conceptual  
154 space between coping at the ground level and the adaptive processes that act as mediators  
155 between stress and long-term effects on health and functioning (Skinner *et al.* 2003). This  
156 system consists of twelve families of coping (e.g., problem solving, self-reliance) that have  
157 been used in recent research with athletes (Tamminen and Holt 2010, Didymus and Fletcher  
158 2014). Skinner *et al.* (2003) pointed out that some of the families of coping are likely to be  
159 more relevant in some contexts than in others. Thus, the classification system was designed  
160 for use with various age groups and for diverse contexts. It would, therefore, be useful to  
161 identify the families of coping that are most relevant to high-level sports coaches and to  
162 explore the functions that these families could play in coaches' adaptation to their  
163 environment.

164 It is apparent that high-level level coaches' stress experiences are worthy of academic  
165 attention. Thus, it is surprising that there appears to be no published research that attempts to  
166 understand why different coaches respond to similar stressors in different ways or why the  
167 same coach may appraise a stressor as stressful on one occasion yet appraise the same  
168 stressor as benign on another occasion (Fletcher and Scott 2010). According to the CMRT  
169 (Lazarus 1999), situational properties of stressors and appraising offer explanatory potential  
170 for understanding individuals' diverse stress experiences. Lazarus (1999) admits that his  
171 CMRT pays little attention to situational properties of stressors and that further research is  
172 needed to examine the properties of situations that determine the potential for a stressful  
173 appraisal. The findings of previous research with world class coaches highlight that, despite  
174 the potentially stressful nature of high level coaching, little is known about why coaches use  
175 limited psychological skills to manage stressful encounters (Olusoga *et al.* 2010). With this

176 and the widespread agreement that coaching at Olympic and international levels is a  
177 demanding profession in mind (e.g., Gould *et al.* 2002), the aim of this study was to use the  
178 CMRT as a lens to explore psychological stress with a sample of Olympic and international  
179 level sports coaches. In particular, the study aimed to explore situational properties of  
180 stressors and coaches' appraisals to address voids in the published literature.

## 181 **Methodology and Methods**

### 182 *Philosophical Assumptions*

183 Notwithstanding calls for epistemological ambiguity in qualitative research (e.g.,  
184 Koro-Ljungberg *et al.* 2009), this study was paradigm driven due to the usefulness of this  
185 approach as a heuristic device for researchers (Wolgemuth *et al.* 2014). My epistemological  
186 position is such that knowledge is constructed, rather than created, via social interaction  
187 (Crotty 1998, Sparkes and Smith 2008). From this position, which is referred to as  
188 constructionism, I see the process of understanding as 'the result of an active, cooperative  
189 enterprise of persons in relationship' (Gergen 1985, p. 267). My epistemological position also  
190 contains traces of post-positivism (see Hill 2012), which allows me to focus on explaining  
191 and understanding at the nomothetic level. With reference to ontology, I have a relativist view  
192 of reality (Smith and Caddick 2012) and assume that my values and experiences influence  
193 what I understand. To maintain an open and thoughtful mind throughout this project, I  
194 maintained a reflexive journal using the internal sources function in NVivo (QSR  
195 International Pty Ltd. 2016). The aims of this activity were to expose implicit biases in my  
196 approach to knowledge construction (Finlay and Gough 2003), to remain aware of my  
197 internal responses to the research process (Etherington 2004), and to acknowledge  
198 subjectivity while capturing my developing understanding of the study method and findings  
199 (Sparkes and Smith 2014).

### 200 *Interviewees*



201 Six women and nine men ( $M_{\text{age}} = 36.92$ ,  $SD = 15.43$  years) who were coaching at  
202 Olympic or international level ( $M_{\text{experience}} = 13.75$ ,  $SD = 11.41$  years) and represented  
203 individual (athletics, equestrian, squash, tennis, triathlon) and team (netball, rugby league,  
204 rugby union, water polo) sports took part in this study. Due to the limited number of coaches  
205 working at Olympic or international level in each aforementioned sport, I have refrained from  
206 including further demographic information that could compromise the coaches'  
207 confidentiality. I used a criterion-based variation of purposeful sampling (Patton 2015) to  
208 recruit the sample. There were two criteria for participation in the study: 1) the coaches had to  
209 be coaching at Olympic or international level at the time of data collection and 2) and the  
210 coaches needed one or more years of coaching experience at this level. In line with previous  
211 research (e.g., Rhind *et al.* 2013), I deemed these criteria appropriate for recruiting  
212 interviewees who could co-construct knowledge that was relevant to the aim of this project. I  
213 assumed that each coach could articulate his or her sport-related experiences of stressors,  
214 appraisals, and coping.

## 215 ***Data Collection***

### 216 *Development of Interview Guide*

217 I developed an interview guide using previous research on coach stressors and coping  
218 strategies (Thelwell *et al.* 2008, Olusoga *et al.* 2009, 2010). I adopted a semi-structured  
219 approach to the design of the interview guide, which included main questions that I asked to  
220 each interviewee, flexible probing questions that aimed to encourage the coaches to elaborate  
221 on their answers, and clarification questions that I could use in instances where an  
222 interviewee's answer was unclear. This semi-structured approach allowed interviewees to  
223 discuss areas of perceived importance (Sparkes and Smith 2014) while allowing me to collect  
224 data that were relevant to the research aim. In addition, the chosen approach complements my  
225 constructionist position by allowing me and the interviewees to engage in flexible and

226 collaborative co-construction of knowledge (Roulston 2010).

### 227 *Interview Questions*

228         The interview questions were divided into four sections. The first section consisted of  
229 open questions (e.g., ‘what do you understand the term “stress” to mean?’) that were  
230 designed to ascertain each coach’s understanding of key terms (stress, stressors, situational  
231 properties, appraising, and coping). Section two of the interview guide asked one open  
232 question to generate a list of memorable stressors that the interviewees had experienced  
233 during their role as an Olympic or international level coach. Section three consisted of a  
234 series of open questions that I asked in relation to each stressor that was recalled during the  
235 second section. These questions were designed to encourage discussion about pivotal  
236 components of the stress process (Didymus and Fletcher 2012, 2014). For example, I asked  
237 the interviewees to ‘describe the characteristics of the stressor in terms of what made it  
238 stressful’ to explore underlying situational properties of stressors and encouraged the coaches  
239 to explain how they evaluated each stressor (‘how did you evaluate this stressor?’) to explore  
240 their appraisals. I explored the coaches’ coping strategies by asking ‘what did you do to cope  
241 with this stressor?’ The collective aim of the first three sections of the interview guide was to  
242 facilitate detailed discussions about the stressors that had left a lasting impression on coaches  
243 and, thus, to explore their experiences of stress. The fourth section of the interview guide  
244 included open and closed questions to discuss each interviewee’s thoughts about the research  
245 (e.g., ‘how did you find the interview?’ and ‘were you able to fully discuss your experiences  
246 of psychological stress?’).

### 247 *Pilot Study*

248         I piloted the interview guide with two coaches. One of these coaches had recently  
249 retired after an international coaching career that spanned 18 consecutive years. The second  
250 pilot interviewee was coaching national level athletes at the time of the study and had 11

251 years of experience as an international level coach. During the pilot phase, both of the  
252 coaches suggested that the question ‘how did you evaluate this stressor?’ required further  
253 clarification. Therefore, in collaboration with the pilot interviewees, I changed this question  
254 to ‘at the time that the stressor occurred, how did you evaluate the impact of it on your  
255 wellbeing?’ No other refinements were made to the interview guide.

### 256 ***Procedure***

257 Following institutional ethical approval, I contacted high-level coaches via an e-mail  
258 that contained information about the nature and purpose of the study. This communication  
259 also informed coaches that participation in the study would involve one face-to-face  
260 interview with me; that the study was in compliance with the British Psychological Society’s  
261 Code of Ethics and Conduct; and that data would be collected, stored, and destroyed in  
262 accordance with the Data Protection Act 1998. Potential interviewees were invited to contact  
263 me if they wanted to take part. Those who did make contact with me arranged a convenient  
264 date, time, and location for an interview. At this stage of the procedure, I sent a copy of the  
265 interview guide to each coach and asked him or her to familiarise with the questions that  
266 would be asked. At the beginning of each interview, I asked each coach to confirm that he or  
267 she understood the purpose and procedure of the study and that he or she was happy for the  
268 interview to commence. Each interviewee then provided written informed consent and  
269 disclosed his or her age, gender, current coaching level, and coaching experience to a  
270 demographic details sheet. I audio recorded each interview using a password encrypted  
271 digital recording device. Each interview lasted between 45 and 95 minutes ( $M_{\text{length}} = 63$ ,  $SD =$   
272 17).

### 273 ***Data Analyses***

274 I transcribed the audio files verbatim using Microsoft Word®. The transcription  
275 process represented an opportunity for me to immerse in the data and, thus, assisted with the

276 analyses. I deemed latent thematic analysis to be appropriate because it encouraged me to  
277 identify, analyse, and report patterns in the data (Braun and Clark 2006) and, thus, address the  
278 aim of the study. In addition, this method is compatible with my constructionist  
279 epistemological position that contains traces of post-positivism because it allowed me to  
280 focus on explaining and understanding the coaches' experiences by exploring the data set as a  
281 whole. I used NVivo (QSR International Pty Ltd. 2016) to assist the six phases of thematic  
282 analysis that I conducted in a recursive manner: familiarisation with the data, generating and  
283 grouping codes, searching for and identifying themes, reviewing the themes, defining and  
284 naming the themes, and producing this article (see Braun and Clark 2006, Merriam and  
285 Tisdell 2016).

286 I applied abductive logic (Denzin 1978, Patton 2015) throughout the analyses to  
287 encourage creative knowledge construction and to apply a theoretical framework to the  
288 interviewees' experiences. This procedure was appropriate because the aim of the study was  
289 to explore psychological stress (inductive) using the CMRT (Lazarus, 1999) as a theoretical  
290 lens (deductive). The abductive approach to latent thematic analysis first involved me  
291 generating inductive codes that I grouped together to represent subjective experiences. I then  
292 searched for and identified themes before making preliminary connections between the  
293 coaches' experiences and the CMRT. While remaining open minded to the unexpected, I  
294 deductively reviewed, defined, and named each theme as a CMRT-related concept (i.e.,  
295 stressors, situational properties, appraisals, and coping). Throughout the data analyses, I  
296 explored various interpretations of the data with a critical friend. These explorations included  
297 discussions about the data that appeared to resonate most deeply with or be most pertinent to  
298 the coaches (e.g., we explored the number of times that each coach and the entire sample  
299 discussed a particular theme and the language that the coaches used). In accordance with  
300 Ryba and colleagues (2012), the purpose of these and broader discussions with the critical

301 friend was to bridge ‘diverse psychological worlds’ (p. 86) and to expose the interpretations  
302 to ‘new possibilities of meaning’ (p. 86). In light of this purpose, I chose a critical friend who  
303 is an expert in qualitative research, rather than psychological stress, so that we could draw on  
304 our different knowledge and experience to consider various meanings.

### 305 *Research Quality*

306 I view criteria for judging the quality of qualitative enquiry from a non-foundational  
307 perspective (Smith and Caddick 2012). Thus, I see quality-related characteristics of research  
308 as time- and place-contingent (Sparkes and Smith 2014). With this in mind, I deemed the  
309 most appropriate criteria for judging the quality of this research to be the substantive  
310 contribution of the findings, coherence, resonance, and credibility. To expand on each of  
311 these characterising traits briefly, I aimed to co-construct knowledge that contributes to  
312 understanding of high-level coaches’ experiences of stress and, thus, report findings that are  
313 substantive. A substantive report on the findings was also achieved by using thick quotes  
314 from the participants when creating the results section of this manuscript. I assessed the  
315 coherence of the findings (i.e., how well they created a meaningful and complete picture;  
316 Smith and Caddick 2012) throughout the study via discussions with a critical friend. With  
317 reference to resonance, my aim was to produce findings that are valuable in Olympic and  
318 international level coaching contexts and in various situations within these contexts (cf. Tracy  
319 2010). Finally, I enhanced credibility by spending time with the participants, by sharing each  
320 coach’s interview transcription with that individual to encourage reflection and dialogue  
321 about the data that I had deemed most pertinent, by using NVivo (QSR International Pty Ltd.  
322 2016) to maintain a reflexive journal and an audit trail of the research, and by having a  
323 critical friend to scrutinize and discuss matters such as the sampling and data analyses.

### 324 **Results**

325 The themes that we (me and the participants) constructed relate to stressors (Table 1),

326 situational properties (Table 2), primary appraisals (Table 3), and coping (Table 4). The  
327 results are presented as quotes from the interviewees that are interweaved with my  
328 interpretations of the data. This method of representation allows the voices of the coaches to  
329 be foregrounded and addresses the aim of the study by providing insight to the coaches'  
330 subjective experiences of working at the highest levels of coaching. Pseudonyms are used  
331 throughout the results section to protect the coaches' identities.

### 332 ***Stressors Experienced by the Coaches***

333 I defined this dimension of the results as 'environmental demands (i.e., events,  
334 situations, or conditions; Fletcher *et al.* 2006) that were encountered by the coaches.' The  
335 coaches reported a variety of stressors that related to the following themes: athlete concerns,  
336 coaching responsibilities, expectations, finance, governance, interference, organizational  
337 management, performance, preparation, and selection (see Table 1). Five of these themes  
338 resonated most deeply with the coaches: athlete concerns, coaching responsibilities,  
339 interference, organizational management, and performance. The codes within the athlete  
340 concerns theme related to athlete commitment and professionalism. In the following example,  
341 Jonathan described his experience of a lack of athlete professionalism: 'As a coach you face  
342 many stressors, like today, I sent a lad home because he went out for some beers last night  
343 and turned up [to training] not in the best of states. It was unacceptable.'

344 [Table 1 near here]

345 Turning to coaching responsibilities, the codes within this theme related to  
346 communicating with athletes, managing athletes psychologically, and meeting athletes'  
347 training needs. For example, Peter spoke about his management of athletes' anxiety prior to  
348 major competitions: '[Location] and [location] are their two events of the whole year to shine  
349 and attract new owners. There's no dress rehearsal and that pressure shows in the rider. It's so  
350 stressful because I have to manage their anxiety.'

351 With reference to stressors in the interference theme, the group of codes encompassed  
352 conflict between individuals, distractions, equine quandary, media, parents, and weather  
353 conditions. With reference to conflict between individuals, Kristin spoke about conflict  
354 between members of a netball team: 'When you've got the squad bickering with each other it  
355 impacts the on field play. If your players aren't getting on off the field, that creates a bit of  
356 tension. So yeah, it's difficult.' Turning to the stressors that related to the media, Roland  
357 described his thoughts about relentless media attention: 'You can take it from me, there's no  
358 other job like it that will have that amount of impact in terms of media and fans. It is just  
359 constant, every day and yes, that's stressful.'

360 Within the organizational management theme, the codes incorporated management  
361 responsibilities, reliability of colleagues, travel, and working hours. For example, Roland  
362 discussed how long working hours adversely influenced his personal life:

363 I'm getting divorced at the moment and the reason I'm getting divorced is because I  
364 am hell bent on making my job work. That means working every hour I have to. The  
365 by-product is that I am disconnected from my family. I don't have a partner who is  
366 ready to support me and go through the rough and smooth in all of the stressful times,  
367 and I don't have time to commit fully to my job and my family. A lot is laid on my  
368 doorstep. No matter what, this job has to get done and everything else has to wait.

369 Moving on to performance-related stressors, the codes in this theme related to athlete  
370 performance, coach performance, and injury. With reference to athlete performance, many of  
371 the coaches discussed stressors related to losing as a result of athlete underperformance. To  
372 illustrate, Anabelle spoke about tennis players' underperformance and regular losses: 'When  
373 you're losing all the time because players aren't performing it's the hardest job in the world  
374 being a coach . . . you're unhappy and you've got to get your players upbeat, you know, it's  
375 really hard.' Each of the coaches discussed injury as a significant stressor for them and the

376 athletes who they work with. In the following quote, Jason described his stressful experiences  
377 relating to injury-anticipation in triathlon: ‘The thing that’s most stressful is the worry that  
378 something really serious might happen to one of your athletes...an injury. You know, we have  
379 a lot of bike crashes every year and people do get injured, some very badly.’

### 380 *Situational Properties of Stressors*

381 I defined this dimension of the results as ‘some underpinning aspect of an  
382 environmental demand that determined the potential for a stressful appraisal’ (Didymus and  
383 Fletcher 2012). The coaches discussed seven situational properties that underpinned their  
384 stressful experiences: ambiguity, duration, event uncertainty, imminence, novelty, temporal  
385 uncertainty, and timing in relation to life cycle (see Table 2). Ambiguity, imminence, and  
386 novelty appeared to be the most pertinent properties that were experienced by the coaches.  
387 Ambiguity, which I conceptualised as situations where the necessary information required to  
388 make an appraisal was unavailable or insufficient, is illustrated in the following quote from  
389 Thomas: ‘It is stressful because we’re not sure whether, for this tournament in May, whether  
390 we’re going to get £10,000 or £15,000 or whatever, you know? I’m not sure what to think;  
391 it’s unclear and that’s confusing.’ I conceptualised imminence, which was discussed by each  
392 of the coaches in this study, as the amount of time before an event occurs (see Lazarus and  
393 Folkman 1984). In the following example, Nellie spoke about a lack of time before an event,  
394 which was influential in forming her appraisal: ‘At late notice I had to take another group of  
395 athletes and I hadn’t had time to prepare. That’s stressful because you think about things  
396 differently when you’re under time pressure like that.’ With reference to novelty, which  
397 relates to the effect of prior knowledge, Alison discussed her experiences of being a new  
398 coach: ‘I was the new coach and I had limited experience; it was me trying to fit in with the  
399 other coaches as well as me being a good coach. That was quite stressful.’

400 [Table 2 near here]



401 With reference to the other situational properties that the coaches discussed, the next  
402 quote is from Jason who spoke about the duration of stressors. This property refers to the  
403 length of time that a stressor persists: 'I think the really stressful things are those that have  
404 built up over a period of time . . . maybe you feel that your relationship with the athlete is not  
405 going well . . . that can be stressful if it lasts.' Turning to event uncertainty, which I  
406 conceptualised as the probability of an event occurring, Alison spoke about unpredictable  
407 weather conditions:

408 Unpredictable weather is stressful. You could be outside one minute with bright  
409 sunshine and the next minute it's chucking it down. Half the time you have no idea  
410 whether it's going to rain or not. Even at the elite level, the athletes don't really like  
411 the rain so that's all added stress when you're not sure whether it's going to happen.

412 In the following quote, Thomas discussed temporal uncertainty (i.e., a lack of clarity  
413 regarding the timings of an event) that related to athletes' training sessions: 'One example is  
414 that we have certain pool bookings over the weekend but we're not completely sure of when  
415 they are . . . I mean that's not perfect, that's not the way things should be.' I conceptualised  
416 timing in relation to life cycle as the contextual properties that define the timing of an event.  
417 In this example, Joshua spoke about the timing of competitive events in relation to public  
418 holidays:

419 The timescales weren't great, linked in with the previous chat about the Christmas  
420 period happening at the wrong time of the calendar year and the timescales that  
421 [country] and [governing body] have put on these selection meets . . . it's quite a lot of  
422 stress.

### 423 *Coaches' Primary Appraisals of Stressors*

424 I defined the primary appraisal dimension of data as 'evaluations of environmental  
425 demands in terms of their relevance to the coach's beliefs, values, goal commitments, and

426 situational intentions' (cf. Lazarus 1999). The coaches in this study most often discussed  
427 challenge and threat appraisals but did also refer to benefit and harm/loss appraisals on  
428 occasion (see Table 3). With reference to challenge appraisals, Hannah suggested that she felt  
429 'quite enthusiastic' when experiencing a performance-related stressor and Annabelle reported  
430 that she felt 'enthusiastic, kind of happy going to work and, you know, tackling the next  
431 thing' when experiencing an unexpected win. In a more lengthy discussion, Katherine spoke  
432 about the challenge appraisal that she made in relation to balancing athletes' needs:

433 I remember thinking at the time that the challenge of coaching women with different  
434 abilities is quite good. I think that's quite a good thing for me as it challenges me as a  
435 coach to balance their needs. If I was working with people of the same ability all the  
436 time then it wouldn't test me in the same way.

437 [Table 3 near here]

438 Turning to threat appraisals, Joshua articulated the way in which he appraised his own  
439 coaching performance and the potential influence of this appraisal on his wellbeing: 'It has  
440 the potential to damage my wellbeing. I have just got over a period of time where my  
441 wellbeing has been affected by this sort of stuff quite badly so I know it could happen again.'  
442 In another example, Katherine discussed how she evaluated observation of her coaching as a  
443 threat: 'It was threatening because someone was watching me and judging me on my  
444 coaching. Being watched made me tighten up and so my coaching could have been  
445 negatively affected by something that I couldn't control.'

446 In the following example, Peter described a benefit appraisal that he made following  
447 feedback from an athlete: 'Today was the first time she has ever said to me "I enjoyed today."  
448 The session was stressful but I felt a sense of gain from it...it made me feel good.' Another  
449 coach, Thomas, spoke about a benefit appraisal that he made in relation to selecting athletes:

450 It's hugely rewarding when it, when you think, "okay we're getting close to the actual

451 squad that is ideal for us” . . . I’m just trying to think about my evaluation of it at the  
 452 time. It was a positive thing because my overall objective in the sport is to be better . .  
 453 . to build a better team. So the stress of selecting the team was more of a benefit, it  
 454 was helping me to reach that objective of building a better team.

455 With reference to harm/loss appraisals, Jason described this type of appraisal when  
 456 referring to his forced redundancy from a coaching role:

457 I have experienced really quite dramatic things like being made redundant and the  
 458 program being cancelled. That was a big setback in terms of me, my wellbeing, and  
 459 the program . . . At the time, I certainly remember thinking that the decisions had had  
 460 a detrimental effect on my wellbeing. I’d go as far as saying that they destroyed it.

461 The next quote is from Peter who spoke about how he appraised competition results  
 462 with a sense of harm/loss:

463 The all-consuming nature of it was damaging physically and mentally . . . and the  
 464 traipsing all around Europe and being physically exhausted and mentally exhausted as  
 465 a result of never having quite the right result. It would always be like 3<sup>rd</sup> or 4<sup>th</sup> . . .  
 466 you’d done everything other than won . . . we never enjoyed the moment at all.

### 467 *Coaches’ Ways of Coping*

468 I defined the dimension of the results that encompassed coaches’ ways of coping as  
 469 ‘cognitive or behavioural strategies that the coaches used to manage stressors that were  
 470 appraised as stressful’ (see Lazarus 1999). The coaches reported an array of coping strategies  
 471 that related to dyadic coping, escape, information seeking, negotiation, problem solving, self-  
 472 reliance, and support seeking (see Table 4). With reference to dyadic coping, codes related to  
 473 common, delegate, and supportive ways of coping. For example, Annabelle discussed how  
 474 she engaged with de-briefing after a match, which was a form of common dyadic coping:  
 475 ‘We de-briefed at the end of the game about what we could have done better . . . it was an

476 open and honest discussion that helped me and the girls cope together.’

477 [Table 4 near here]

478 Codes within the escape family of coping referred to behavioural avoidance, changing  
479 focus, and cognitive avoidance. Martin, for example, reported that he avoided conflict  
480 between individuals by removing himself from the situation: ‘It’s easier for me to walk away,  
481 else I end up saying things that aren’t necessary and that can blow things out of proportion.’  
482 Turning to the information seeking family, this included codes relating to asking others,  
483 observation, and reading. Many of the coaches reported that they coped with stressors by  
484 posing questions to colleagues. To illustrate, the following quote is from Joshua who  
485 described a situation when he asked others to glean information and cope with coaching  
486 responsibilities: ‘I asked some people about it. I talked to my colleagues about different  
487 movement processes and patterns, and about the transferability of some of the skills.’

488 The negotiation family of coping encompassed communication, prioritising, and  
489 setting goals. For example, Martin spoke about his communication with an athlete that helped  
490 him to cope with a performance-related stressor: ‘I discussed a little bit with [the athlete]  
491 about what his understanding is, why he finds it difficult, and what he’s feeling.’ The problem  
492 solving family referred to changing behaviour, concentration, planning, professional  
493 development, and strategizing. In this quote, Roland discussed how he changed his behaviour  
494 to work longer hours when coping with athletes’ underperformance: ‘What I did was work  
495 harder and do longer hours, spend longer looking at tapes of the games that we’ve played,  
496 spend longer sitting down with individuals.’

497 Within the self-reliance family of coping, coaches reported strategies relating to  
498 emotion regulation, emotion expression, reflection, and self-comforting. Jonathan described  
499 how he used reflection to cope with his performance during a rugby game: ‘After the game  
500 when I got a quiet moment I took some time to reflect because I did tend to...I missed things

501 and said things because I was so animated.’ The support seeking family of coping  
502 encompassed comfort seeking, contact seeking, and instrumental aid. To illustrate, the  
503 following quote is from Kristin who described receiving advice as a form of instrumental aid  
504 to cope with interference from parents: ‘I get advice from my manager, she’s good. She can  
505 give me advice and she will have been through it herself because she’s a tennis coach too.’

## 506 **Discussion**

507 The aim of this study was to use Lazarus’ (1999) CMRT as a lens to explore  
508 psychological stress with a sample of Olympic and international level sports coaches. In  
509 particular, the study aimed to explore situational properties of stressors and coaches’  
510 appraisals to address voids in the published literature. The findings support and extend the  
511 CMRT, which provided a useful framework for developing new understanding. For example,  
512 the coaches reported a variety of stressors and suggested that these stressors were  
513 underpinned by a number of situational properties that are incorporated within the CMRT.  
514 Ambiguity and imminence, for example, are key foci of Lazarus’ (1999) theory but the  
515 findings of this study suggest that other properties, including novelty, were also pertinent  
516 during the coaches’ experiences. This information could be used to develop the CMRT during  
517 future research with high-level coaches. The coaches in this study experienced threat and  
518 challenge appraisals and, to a lesser extent, harm/loss and benefit appraisals. This supports  
519 the CMRT and provides insight to high-level coaches’ evaluations of stressful situations,  
520 which have not until now been the focus of academic attention. With reference to coping, it is  
521 perhaps unsurprising that a plethora of coping strategies were discussed but the way in which  
522 these have been categorised and reported extends the literature by offering new insight to the  
523 role of coping in coaches’ adaptation to and success in their coaching profession.

524 The stressors that were reported by the coaches in this study support previous research  
525 (e.g., Thelwell *et al.* 2008, Olusoga *et al.* 2009) by highlighting the volume and variety of

526 stressors that can be experienced and the potentially stressful nature of Olympic and  
527 international level coaching. This information is helpful for understanding the environmental  
528 demands that high-level coaches may need to cope with but it is the situational properties of  
529 stressors that offer a more promising avenue for impact. To the best of my knowledge, no  
530 published literature exists that specifically explores these properties with coaches although  
531 one paper (Olusoga *et al.* 2009) did present a comparable finding. To explain briefly, Olusoga  
532 and colleagues reported that stressors that occurred simultaneously created a demanding  
533 environment for their sample of world-class coaches. This finding is similar to the data  
534 presented here that relate to timing in relation to life cycle and, thus, the collective findings of  
535 both pieces of research suggest that the timing of stressors is important for high-level  
536 coaches. The current findings compliment the results of some general psychology research  
537 that link ambiguity to threat appraisals (see e.g., Chen and Lovibond 2016) by suggesting that  
538 ambiguous stressors are influential in coaches' experiences of stress. This may be because  
539 ambiguity is closely linked to various person factors (e.g., intolerance of uncertainty, Taha *et*  
540 *al.* 2014) that can provoke threat appraisals and negative affect, and because threat appraisals  
541 and negative affect relate to performance (e.g., Gaudreau *et al.* 2002, Moore *et al.* 2012).  
542 With reference to the other situational properties that were reported by the coaches, the  
543 pertinence of imminence may be explained by the CMRT, which highlights the moderating  
544 role of temporal properties (i.e., duration, imminence, temporal uncertainty, and timing in  
545 relation to life cycle) on appraisals (Lazarus 1999). These properties help to explain why a  
546 stressor may be appraised as harmful at one point in time yet beneficial at another and, thus,  
547 hold explanatory potential for a better understanding of stress experiences.

548         The results that relate to appraisals suggest that each of the four transactional  
549 alternatives (benefit, challenge, harm/loss, and threat) that are incorporated within the CMRT  
550 (Lazarus 1999) were experienced by the coaches in this study. The coaches did, however,

551 report less information relating to their appraisals when compared to that relating to stressors,  
552 situational properties, and coping. This suggests that the coaches found it difficult to recall  
553 their appraisals of stressors during the interviews. One explanation for this may be that  
554 appraising can be either deliberate and conscious or automatic and largely unconscious  
555 (Lazarus 1999). Thus, it could be that the coaches' appraisals were largely instinctive, which  
556 supports some appraisal theorists' (e.g., Moors 2010) suggestions that appraising, or at least  
557 some parts of this process, are constructive and can occur automatically (Ferguson and Bargh  
558 2003). While no other published research has provided a detailed examination of coaches'  
559 appraisals of stressors, Frey (2007) did highlight that coaches can respond to stressors in both  
560 positive and negative ways. The current findings support this assertion because the coaches  
561 discussed both positive (benefit, challenge) and negative (threat, harm/loss) appraisals.

562 Turning to the coping strategies reported by the coaches, the results presented here  
563 suggest that Skinner *et al.*'s (2003) categorisation offers a helpful framework that dovetails  
564 the CMRT and allows exploration of coping as an adaptationally relevant process. To expand  
565 briefly, the families of coping that were used as a framework to guide the categorisation of  
566 coping strategies each serve a different function in adaptive processes and, therefore, offer  
567 insight to how high-level coaches may adapt to high performance environments. For  
568 example, the coaches used coping strategies within the negotiation family of coping and  
569 Skinner *et al.* (2003) suggested that the function of such coping efforts is to 'find new  
570 options' (p. 245). This function allows individuals to coordinate coping preferences and  
571 available options (Skinner *et al.* 2003), which may explain why the coaches turned to  
572 prioritising and setting goals, for example, when managing stressors. The findings of this  
573 study highlighted dyadic coping (see Bodenmann 1995, 1997) as a coping option for the  
574 coaches and, therefore, suggest that high-level coaches' coping does not occur in a social  
575 vacuum but can involve athletes and members of their wider network. Collectively, the

576 findings relating to coaches' ways of coping extend knowledge by moving away from lists of  
577 strategies that relate to the intention and function of coping (e.g., Levy *et al.* 2009, Olusoga *et*  
578 *al.* 2010, 2012) and toward an understanding of coping as an interpersonal phenomenon that  
579 moderates adaptational processes.

580         With my reflexive stance in mind, it is important to consider potential strengths and  
581 limitations of this study. One strength relates to the theory driven approach that I took to  
582 constructing knowledge. This approach advances understanding of complex phenomena and  
583 can aid researchers in making decisions on appropriate courses of evidence-based action.  
584 Another strength of this study is the sample that consisted of members of a high-level  
585 coaching community. Sampling these individuals can provide fascinating insight to the  
586 psychological factors that underlie the achievements of exceptional individuals (Simonton  
587 1999). Despite these strengths and the methodological rigour that was inherent in the study  
588 design and execution, a number of potential limitations should be considered when  
589 interpreting the findings. For example, the power relationships (Day 2012) that were  
590 inevitable within and between me and the interviewees are likely to have influenced the  
591 findings. This is because these relationships are tied to broad social structures (Sparkes and  
592 Smith 2014) that were not fully explored during data collection. In addition, while I explored  
593 the usefulness of the CMRT for understanding high-level coaches' experiences, the relational  
594 approach that is inherent to this theory and relates to person (e.g., goal relevance, goal  
595 conduciveness, coping potential, beliefs) and environmental (e.g., demands, constraints,  
596 opportunities) characteristics and their relative importance was not fully espoused. This is  
597 because the next logical step in understanding coaches' stress experiences was to focus on  
598 components of stress that had not been elucidated at the point of starting this study. Once  
599 these components are more fully understood, researchers should progress toward  
600 understanding the complex relational aspects of stress experiences.



601 To further explore coaches' stress experiences, future research should focus on person  
602 and environmental characteristics, and on the role of relational meanings and emotions in  
603 high-level coaches' stress transactions. This will aid a more thorough examination of the  
604 relational approach that is fundamental to the CMRT. With knowledge that appraising is at  
605 the heart of psychological stress in mind (Didymus and Fletcher 2012, Lazarus and Folkman  
606 1984), further research is needed to better understand the explanatory potential of appraising  
607 in coaches' stress transactions. Future research should also work towards a better  
608 understanding of the ways in which high-level coaches cope with the competitive and  
609 potentially stressful environment in which they work, and how effective coaches' coping  
610 strategies are in managing the negative outcomes of stressors. Such explorations should aim  
611 to corroborate Skinner *et al.*'s (2003) families of coping and foster knowledge of coaches'  
612 adaptationally relevant, interpersonal stress transactions that occur outside of the social  
613 vacuum in which they have been explored to date.

614 To close, this study constructed new knowledge of Olympic and international level  
615 coaches' experiences of psychological stress using the CMRT (Lazarus 1999) as a guiding  
616 theory. The CMRT was a useful framework that allowed some components of stress  
617 transactions, which have not been explored in the published literature with high-level coaches  
618 to date (i.e., situational properties of stressors, appraisals), to be highlighted as pertinent  
619 aspects of coaches' experiences. The findings signpost the explanatory potential of situational  
620 properties and appraisals and go some way toward developing a better understanding of high-  
621 level coaches' diverse experiences. Ambiguity, imminence, and novelty were pertinent  
622 situational properties that underpinned the stressors that the coaches experienced. Thus, sport  
623 psychology practitioners would do well to consider how their coach clients can effectively  
624 manage ambiguous, imminent, and novel situations. One example of how practitioners may  
625 apply this aspect of the findings is to work with high-level coaches to draw on comparable or

626 vicarious experience to bolster self-efficacy (see e.g., Bandura, 1977) and, in turn, buffer  
627 against novel stressors. Practitioners and researchers should also attend to the ways that  
628 sports coaches appraise and cope with stressors, and how they adapt to the potentially  
629 stressful nature of coaching at the highest level.

Accepted Manuscript

## References

- 630
- 631 Alsentali, A.M., and Anshel, M.H., 2015. Relationship between internal and external acute  
632 stressors and coping style. *Journal of sport behaviour*, 38 (4), 357–375.
- 633 Bandura, A., 1977. Self-efficacy: toward a unifying theory of behavioral change.  
634 *Psychological review*, 84 (2), 191–215.
- 635 Bodenmann, G., 1995. A systemic-transactional conceptualization of stress and coping in  
636 couples. *Swiss journal of psychology*, 54 (1), 34–49.
- 637 Bodenmann, G., 1997. Dyadic coping: a systemic-transactional view of stress and coping  
638 among couples: theory and empirical findings. *Revue européenne de psychologie  
639 appliquée*, 47 (2), 137–140.
- 640 Braun, V., and Clark, V., 2006. Using thematic analysis in psychology. *Qualitative research in  
641 psychology*, 3 (2), 77–101.
- 642 Chen, J.T.-H., and Lovibond, P.F., 2016. Intolerance of uncertainty is associated with  
643 increased threat appraisal and negative affect under ambiguity but not uncertainty.  
644 *Behavior therapy*, 47 (1), 42–53.
- 645 Crotty, M., 1998. *The foundations of social research: meaning and perspective in the  
646 research process*. London: Sage.
- 647 Day, S., 2012. A reflexive lens: exploring dilemmas of qualitative methodology through the  
648 concept of reflexivity. *Qualitative sociology review*, 8 (1), 60–85.
- 649 Denzin, N.K., 1978. *The research act: a theoretical introduction to sociological methods*. 2nd  
650 ed. New York: McGraw–Hill.
- 651 Didymus, F.F., and Fletcher, D., 2012. Getting to the heart of the matter: a diary study of  
652 swimmers' appraisals of organisational stressors. *Journal of sports sciences*, 30 (13),  
653 1375–1385.
- 654 Didymus, F.F., and Fletcher, D., 2014. Swimmers' experiences of organizational stress:

- 655 exploring the role of cognitive appraisal and coping strategies. *Journal of clinical*  
656 *sport psychology*, 8 (2), 159–183.
- 657 Etherington, K., 2004. *Becoming a reflexive researcher*. London: Jessica–Kingsley.
- 658 Ferguson, M.J., and Bargh, J.A., 2003. The constructive nature of evaluation. *In*: J. Musch  
659 and K. Klauer, eds. *The psychology of evaluation: affective processes in cognition and*  
660 *emotion*. Mahwah: Erlbaum, 169–188.
- 661 Finlay, L., and Gough, B., 2003. *Reflexivity: a practical guide for researchers in health and*  
662 *the social sciences*. Oxford: Blackwell.
- 663 Fletcher, D., Hanton, S., and Mellalieu, S.D., 2006. An organizational stress review:  
664 conceptual and theoretical issues in competitive sport. *In*: S. Hanton and S.D.  
665 Mellalieu, eds. *Literature reviews in sport psychology*. Hauppauge: Nova Science,  
666 321–374.
- 667 Fletcher, D., and Scott, M., 2010. Psychological stress in sports coaches: a review of  
668 concepts, research, and practice. *Journal of sports sciences*, 28 (2), 127–137.
- 669 Frey, M., 2007. College coaches' experiences with stress –“problem solvers” have problems,  
670 too. *The sport psychologist*, 21 (1), 38–59.
- 671 Gaudreau, P., Blondin, J.-P., and Lapierre, A.-M., 2002. Athletes' coping during a  
672 competition: relationship of coping strategies with positive affect, negative affect, and  
673 performance–goal discrepancy. *Psychology of sport and exercise*, 3 (2), 125–150.
- 674 Gergen, K.J., 1985. The social constructionism movement in modern psychology. *American*  
675 *psychologist*, 40 (3), 266–275.
- 676 Gould, D., *et al.*, 2002. A survey of U.S. Olympic coaches: variable perceived to have  
677 influenced athlete performances and coach effectiveness. *The sport psychologist*, 16  
678 (3), 229–250.
- 679 Hardy, L., 1992. Psychological stress, performance, and injury in sport. *British medical*

- 680           *bulletin*, 48 (2), 615–629.
- 681 Hill, C.E., 2012. Introduction to consensual qualitative research. In: C.E. Hill, ed. *Consensual*  
682           *qualitative research: A practical resource for investigating social science phenomena*  
683           [online]. Washington, DC: American Psychological Association.
- 684 Hill, B., and Sotiriadou, P., 2016. Coach decision-making and the relative age effect on talent  
685           selection in football. *European sport management quarterly*, 16 (3), 292–315.
- 686 Hudson, J., Davison, G., and Robinson, P., 2013. Psychophysiological and stress responses to  
687           competition in team sport coaches: an exploratory study. *Scandinavian journal of*  
688           *medicine and science in sports*, 23 (5), 279–285.
- 689 Knight, C.J., *et al.*, 2013. Personal and situational factors influencing coaches' perceptions of  
690           stress. *Journal of sports sciences*, 31 (10), 1054–1063.
- 691 Koro-Ljungberg, M., *et al.*, 2009. (E)pistemological awareness, instantiation of methods, and  
692           uninformed methodological ambiguity in qualitative research projects. *Educational*  
693           *researcher*, 38 (9), 687–699.
- 694 Lazarus, R.S., 1999. *Stress and emotion: a new synthesis*. New York: Springer.
- 695 Lazarus, R.S., and Folkman, S., 1984. *Stress, appraisal, and coping*. New York: Springer.
- 696 Levy, A., *et al.*, 2009. Organisational stressors, coping, and coping effectiveness: a  
697           longitudinal study with an elite coach. *International journal of sports science and*  
698           *coaching*, 4 (1), 31–45.
- 699 Lyle, J., 2002. *Sports coaching concepts: a framework for coaches' behaviour*. London:  
700           Routledge.
- 701 Merriam, S.B., and Tisdell, E.J., 2016. *Qualitative research: a guide to design and*  
702           *implementation*. San Francisco: Jossey-Bass.
- 703 Miller, P.S., Salmela, J.H., and Kerr, G., 2002. Coaches' perceived role in mentoring athletes.  
704           *International journal of sport psychology*, 33 (4), 410–430.

- 705 Moore, L.J., *et al.*, 2012. The effect of challenge and threat states on performance: an  
706 examination of potential mechanisms. *Psychophysiology*, 49 (10), 1417–1425.
- 707 Moors, A., 2010. Automatic constructive appraisal as a candidate cause of emotion. *Emotion*  
708 *review*, 2 (2), 139–156.
- 709 Olusoga, P., *et al.*, 2009. Stress in elite sports coaching: identifying stressors. *Journal of*  
710 *applied sport psychology*, 21 (4), 442–459.
- 711 Olusoga, P., *et al.*, 2010. Stress and coping: a study of world class coaches. *Journal of*  
712 *applied sport psychology*, 22 (3), 274–293.
- 713 Olusoga, P., *et al.*, 2012. Coaching under pressure: a study of Olympic coaches. *Journal of*  
714 *sports sciences*, 30 (3), 229–239.
- 715 Parent, M.M., Kristiansen, E., and Macintosh, E.W., 2014. Athletes' experiences at the youth  
716 Olympic games: perceptions, stressors, and discourse paradox. *Event management*, 18  
717 (3), 303–324.
- 718 Patton, M.Q., 2015. *Qualitative research and evaluation methods*. 4th ed. Newbury Park:  
719 Sage.
- 720 QSR International Pty Ltd., 2016. *NVivo: the #1 software for qualitative data analysis*  
721 [online]. Victoria, Australia. Available from: <http://www.qsrinternational.com/product>  
722 [Accessed 10 May 2016].
- 723 Rhind, D.J.A., Scott, M., and Fletcher, D., 2013. Organizational stress in professional soccer  
724 coaches. *International journal of sport psychology*, 44 (1), 1–16.
- 725 Roulston, K., 2010. Considering quality in qualitative interviewing. *Qualitative research*, 10  
726 (2), 199–228.
- 727 Ryba, T.V., *et al.*, 2012. Toward a conceptual understanding of acute cultural adaptation: a  
728 preliminary examination of ACA in female swimming. *Qualitative research in sport,*  
729 *exercise and health*, 4 (1), 80–97.

- 730 Schaffran, P., Altfeld, S., and Kellmann, M., 2016. Burnout in sport coaches: a review of  
731 correlates, measurement and intervention. *Deutsche zeitschrift für sportmedizin*, 67  
732 (5), 121–125.
- 733 Simonton, D.K., 1999. Significant samples: the psychological study of eminent individuals.  
734 *Psychological methods*, 4 (4), 425–451.
- 735 Skinner, E.A., *et al.*, 2003. Searching for the structure of coping: a review and critique of  
736 category systems for classifying ways of coping. *Psychological bulletin*, 129 (2), 216–  
737 269.
- 738 Smith, B., and Caddick, N., 2012. Qualitative methods in sport: a concise overview for  
739 guiding social scientific sport research. *Asia pacific journal of sport and social*  
740 *science*, 1 (1), 60–73.
- 741 Smith, C.A., and Lazarus, R.S., 1993. Appraisal components, core relational themes, and the  
742 emotions. *Cognition and emotion*, 7 (3/4), 233–269.
- 743 Sparkes, A.C., and Smith, B., 2008. Narrative constructionist inquiry. *In*: J. Holstein and J.  
744 Gubrium, eds. *Handbook of constructionist research*. London: Guilford Publications,  
745 295–314.
- 746 Sparkes, A.C., and Smith, B., 2014. *Qualitative research methods in sport, exercise and*  
747 *health*. Oxon: Routledge.
- 748 Taha, S.A., Matheson, K., and Anisman, H., 2014. H1N1 was not all that scary: uncertainty  
749 and stressor appraisals predict anxiety related to a coming viral threat. *Stress and*  
750 *health*, 30 (2), 149–157.
- 751 Tamminen, K.A., and Holt, N.L., 2010. Female adolescent athletes' coping: a season-long  
752 investigation. *Journal of sports sciences*, 28 (1), 101–114.
- 753 Thelwell, R.C., *et al.*, 2016. Exploring athletes' perceptions of coach stress in elite sport  
754 environments. *Journal of sports sciences*. Advance online publication.

- 755           doi:10.1080/02640414.2016.1154979
- 756   Thelwell, R.C., *et al.*, 2008. Stressors in elite sport: a coach perspective. *Journal of sports*  
757           *sciences*, 26 (9), 905–918.
- 758   Tracy, S.J., 2010. Qualitative quality: eight “big tent” criteria for excellent qualitative  
759           research. *Qualitative inquiry*, 16 (10), 837–851.
- 760   Uphill, M.A., and Jones, M.V., 2007. The antecedents of emotions in elite athletes: a  
761           cognitive motivational relational theory perspective. *Research quarterly for exercise*  
762           *and sport*, 78 (1), 79–89.
- 763   Wang, J., and Ramsey, J., 1998. The relationship of school type, coaching experience, gender  
764           and age to new coaches’ challenges and barriers at the collegiate level. *Applied*  
765           *research in coaching and athletics*, 13, 1–22.
- 766   Wolgemuth, J.R., *et al.*, 2014. Participants’ experiences of the qualitative interview:  
767           considering the importance of research paradigms. *Qualitative research*, 15 (3), 351–  
768           372.



769 Table 1

770 *Stressors experienced by the coaches*

Codes	Groups of Codes	Themes
Failure to take ownership of performance Lack of involvement Lack of motivation	Commitment	
Attending training with a hangover Bad habits Denying mistakes Disrespectful behaviour Doubting ability Drink driving related incidents Drug related incidents Inexperienced athletes Lack of belief in the coach	Professionalism	Athlete concerns
Making the transition to international competition Misusing sports equipment Reliability of athletes Top players affecting other athletes Unhelpful attitudes Unprofessional behaviour		
Building rapport		
Choosing helpful words when communicating Learning how to communicate	Communicating with athletes	
Athletes' erratic reactions to stressors Building a cohesive team Developing athletes' attitudes Easing athletes' anxiety Instilling confidence in athletes		
Judging and accommodating athletes' moods Maintaining a positive environment Maintaining positivity during competition Managing athlete disclosure Managing desperation to succeed Managing athlete temperaments Supporting athletes through bereavement Unpredictable nature of athletes during training Working with mental health problems	Managing athletes psychologically	Coaching responsibilities

771

Athletes requiring more time than can be provided			
Balancing athletes' needs	Meeting athletes' training needs	Coaching responsibilities (cont.)	
Coaching athletes from different cultures			
Meeting the needs of different athletes			
Providing appropriate support			
Expectations of coaching performance	Athletes' expectations		
Unrealistic expectations			
Expectations before a local derby	Expectations of self		
Performance expectation			
Family expectations		Expectations	
Horse owner expectations			
Media expectations	Perceived external expectations		
National governing body expectations			
Spectator expectations			
Sponsor Expectations			
Funding for competitions			
Insufficient financial support	Athlete finance		
Sport costs favouring wealthy athletes			
Budget for competitions			
Budget management	Club finance	Finance	
Funding that is dependent on performance			
Costs involved with being a coach			
Devalued assets due to poor performance	Coach finance		
Personal finance			
Being excluded from decisions that affect athletes			
Club board level decisions	Decision making		
National governing body level decisions			
Centralisation of the training programme			
Confusion around training times			
Disorganised training and competition environments	National governing body organisation and foci	Governance	
Emphasis on results			
Insufficient training time			
Job insecurity			
Uncertain competition plans			
Unclear selection criteria			
Unclear selection procedures	Selection		
Unhelpful timing of selection meets			
Athlete bickering and disagreements			
Coaching a family member	Conflict between individuals	Interference	
Conflicting agendas of coach and external agencies			
Disagreement between coach and athlete			

Athletes being a training partner for an Olympian			
Athletes' involvement in other activities			
Competitions taking athletes away from training		Distractions	
Noisy working conditions			
Horse behaviour		Equine	
Horse's mental state		quandary	
Agenda driven media			
Constant media attention			
Distorted media reports			
Getting helpful information to the media		Media	Interference (cont.)
Media commitments			
Media portrayals of me as a person			
Social media			
Parents being too hard on children		Parents	
Parents interfering with training			
Flooded facilities		Weather	
Weather affecting competition		conditions	
Weather preventing training			
Completing multiple tasks simultaneously		Management	
Managing multiple executive roles		responsibilities	
Managing staff			
Coaches letting athletes down		Reliability of	
Coaches not attending training		colleagues	
Booking flights and accommodation for athletes			Organizational management
Travel to competition		Travel	
Travel to training sessions			
Travel visas			
Long working hours		Working hours	
Working longer hours than contract states			
Work-life balance			
Athlete underperformance		Athlete	
Athletes not learning from instructions		performance	
Indolent athletes			
Lack of effort from athletes			
Being observed during training			Performance
Making mistakes during training			
Coaching a new team or athlete		Coach	
Doubt in coaching abilities		performance	
Making decisions under pressure			
Making helpful decisions about training plans			
Managing time effectively			

Not giving 100% during coaching		
Protecting athletes from coach's emotions		
Starting as a professional coach	Coach performance (cont.)	
Teaching technical content		
Thinking on the spot		
Athletes' acute injuries during competition		Performance (cont.)
Athletes' chronic injuries		
Athletes' injury rehabilitation		
Athletes training despite chronic injuries	Injury	
Coaches' chronic injuries		
Injury-anticipation		
Accessing facilities		
Inadequate equipment		
Inadequate facilities		
Lack of preparation time	Competition preparation	
Organising athletes before a big tournament		Preparation
Preparing for major events		
Undoing unhelpful work from other coaches		
Athletes not having appropriate equipment		
Getting to training on time	Training preparation	
Preparing training sessions based on match performance		
Choosing the best athletes for the team		
Leaving athletes out of the team	Selecting athletes	
Releasing players from contract		Selection
Missing a selection opportunity	Selection for major events	
Olympic selection		

775 Table 2

776 *Situational properties of stressors*

Codes	Groups of Codes	Themes
Absence of clear information Excessive and unclear information Insufficient clarity	Ambiguous information	Ambiguity
Lack of time to prepare for the stressor Minimal time to adjust to the stressor	Acute stressors	Duration
Events taking too much time Repeated exposure to the stressor Stressor building over a period of time	Chronic stressors	
Unconvinced by the conditions Unsure how possible the event is Unsure whether the situation will happen	Uncertainty regarding event occurrence	Event uncertainty
Unpredictable nature of the stressor Volatility of the situation	Unpredictability	Imminence
Too much time to deliberate the event Too much time to prepare	Excessive time before an event	
Event is just around the corner Event needs to be assessed and addressed quickly Lack of time before an event Late notification of an event Time running out before an event	Insufficient time before an event	
Adequate prior experience of the stressor Limited prior experience of events No prior experience of the Olympics	Experience	Novelty
Limited prior knowledge of the stressor No existing knowledge of the event	Knowledge	Temporal uncertainty
Not knowing when a stressor will occur Unsure of precise timing of events	Doubt about timing of stressors	
Doubt about how long a stressor will last Doubts about the longevity of a stressor	Doubt relating to the length of an event	
Stressors coinciding with personal commitments Stressors coinciding with public holidays Stressors coinciding with work commitments	Stressors clashing with commitments	Timing in relation to life cycle
Incompatible coach and athlete timetables Multiple stressors occurring simultaneously Stressor occurring late in the season	Timing of stressors	

777

778 Table 3

779 *Coaches' primary appraisals of stressors*

Codes	Groups of Codes	Themes
Experienced a sense of gain from the stressor Rewarding process of tackling the stressor	Benefit to self	Benefit
Stressor helped to achieve a goal	Goal attainment	
Confident that we can overcome the stressor Felt enthusiastic towards the stressor	Assertiveness	Challenge
Saw the stressor as advantageous for my wellbeing Sense of potential gain from the stressor	Potential benefit to self	
Saw the event as a way to achieve a goal	Potential gain	
Event prevented us from achieving our goal	Goals inhibited	
Felt mentally and physically exhausted by the situation Situation caused damage to my wellbeing Situation hurt my feelings Stressor caused me to be depressed	Damage to self	Harm/loss
Stressor threatened our goals	Goal-related threat	
Stressor had the potential to damage the players Terrified that something bad would happen	Potential damage to others	Threat
Felt an impending sense of threat		
Felt negative about the potential outcomes Potential damage to physical and psychological health Situation could damage my wellbeing	Potential damage to self	

780

781 Table 4

782 *Coaches' ways of coping*

Codes	Groups of Codes	Themes (function in adaptive process)
De-briefing with athletes De-briefing with colleagues Discussing feedback Sharing the responsibility of learning Trying to understand the situation together	Common	
Athletes doing coaching tasks Referring athletes to discipline specialists Using school masters to help athletes feel movements	Delegated	Dyadic (pool available resources)
Athletes helping to relay information Encouraging athletes to realise their bad habits Encouraging athletes to think positively Encouraging athletes to train with 100% effort	Supportive	
Avoiding every facet of life and sport Avoiding stressors Avoiding the media and third parties Backing off from athletes Removing oneself from the situation Removing the horse from competition Taking a physical step back	Behavioural avoidance	Escape (escape noncontingent environment)
Consuming alcohol Exercising Using humour	Changing focus	
Putting the stressor to the back of my mind Switching off from the stressor Trying not to worry about the stressor	Cognitive avoidance	
Getting to know the individual athlete Having one to one meetings with athletes Listening to the athlete Posing questions to colleagues Seeking a second opinion Assessing the situation	Asking others	Information seeking (find additional contingencies)
Seeking further information about the athletes' situation Watching someone else riding the same horse	Observation	
Researching relevant information Using research to inform athlete preparation	Reading	

Being honest with players		
Communicating club rules at the outset		
Communicating mistakes with athletes		
Communicating openly with athletes		
Conducting sessions on athletes' attitudes		
Highlighting the importance of representing the country	Communication	
Lecturing athletes to motivate them		
Presenting evidence to athletes		Negotiation (find new options)
Reviewing athletes' performance individually		
Speaking with parents		
Writing notes		
Focussing first on what is most urgent	Prioritising	
Prioritising what is important		
Re-adjusting goals		
Setting goals for each coaching session	Setting goals	
Setting process orientated goals		
Setting realistic and timely goals		
Accepting the situation		
Acting during coaching		
Adapting to the situation		
Being more organised		
Coaching the basics		
Creating flexible training plans		
Demonstrating on the athlete's horse		
Developing consequences for athletes' behaviour	Changing behaviour	
Involving athletes with decisions		
Leaving the house on time		
Making alternative arrangements		Problem solving (adjust actions to be effective)
Making time for a social life		
Under coaching to boost confidence		
Working harder		
Working longer hours		
Concentrating on the athletes		
Concentrating on what I have control of		
Focussing on my own career	Concentration	
Focussing on the job		
Focussing on the process		
Focussing on what can be done		
Being realistic about time commitments		
Developing a plan	Planning	
Having a back-up plan		



Planning diversity into the athlete cohort		
Planning for competition		
Planning for various situations	Planning (cont.)	
Re-planning based on new information		
Developing myself as a coach		
Learning about developing athletes	Professional development	
Learning about the chimp paradox		Problem solving (cont.)
Learning to see stressors as opportunities		
Developing team trademarks		
Having well known players on the team		
Protecting athletes from coach's own stressors	Strategizing	
Removing an athlete from the team		
Removing an athlete from training		
Weighing up pros and cons		
Absorbing stress		
Maintaining a steady emotional state		
Not worrying about the stressor	Emotion regulation	
Protecting athletes from coach's emotions		
Remaining calm		
Celebrating		Self-reliance (protect available social resources)
Panicking about the situation		
Sharing repartee with colleagues	Emotion expression	
Shouting at athletes		
Venting to other coaches		
Reflecting on the situation	Reflection	
Having faith in coaching ability		
Reminding oneself of own ability	Self-comforting	
Using positive self-talk		
Being comforted		
Being listened to	Comfort seeking	
Being made to feel secure		Support seeking (use available social resources)
Receiving help from an athlete		
Receiving help from another coach	Contact seeking	
Receiving advice	Instrumental aid	
Receiving guidance		

785 Disclosure Statement

786 The author will gain no financial benefit from and has no financial interest in the  
787 publication or application of this research.

788

789 Biographical Note

790 Faye F. Didymus is a senior lecturer in sport and exercise psychology within the  
791 Institute for Sport, Physical Activity, and Leisure at Leeds Beckett University. Faye's  
792 fundamental and applied research focuses on the psychology of performance in sport and  
793 related environments. In particular, Faye is interested in the ways that psychological stress  
794 may inhibit or facilitate peak performance in sports coaches and performers.

Accepted Manuscript