

Abstract

This study extends stress research by exploring the stressors experienced by physiotherapists' working in elite sport. The physiotherapists who were interviewed have prepared athletes and worked with them at international events (e.g., Olympic and Paralympic Games). Transcripts were analyzed using thematic analysis. Methodological rigor and generalizability were maximized through self-reflexivity and eliciting external reflections before seeking publication. Five themes were identified: *I am not a Machine, This is Sport, Relationships are Messy, Under the Microscope, and Beyond one's Remit*. These themes illustrate that sports physiotherapists experience a wide variety of stressors (e.g., workload, power-relationships, moral and ethical conflicts), with diverse consequences (e.g., work-life conflict, job insecurity, relationship breakdown). Although these findings resonate with practitioners in other sport science and management roles, they also provide unique insights into this population. Practical implications are discussed across multiple levels (i.e., policy, cultural, organizational, interpersonal, and intrapersonal).

Key Words: Emotions, Stress, Strain, Pressure, Culture, Climate, Ethics

Introduction

1 Building on a wealth of research on athletes' stress experiences, contemporary scholars are
2 now focusing more attention on the professional challenges experienced by 'the team behind the
3 team' (viz., those individuals operating in sport science and management roles in elite sport; Arnold,
4 Collington, Manley, Rees, Soanes, & Williams, 2017; Hings, Wagstaff, Anderson, Gilmore, &
5 Thelwell, 2018). Indeed, Wagstaff (2017) recently reported that there are additional 'performers' in
6 sporting contexts (e.g., coaches) who, like athletes, encounter demanding situations and are expected
7 to perform under pressure. This shifts the focus beyond athletes' stress experiences to provide novel
8 insights into those operating in sport science and management roles. To date, research on stress has
9 been conducted with coaches, sport psychologists, and parents (e.g., Didymus, 2017; Fletcher,
10 Rumbold, Tester, & Coombes, 2011; Clarke & Harwood, 2014). Yet, Arnold et al. (2017) reported
11 that many of the stressors experienced by other members of the sport science and management roles
12 in elite sport have not been explored. This current study is timely and original in that it aims to
13 explore the stressors experience in elite sport by physiotherapists.

14 One model that has been used to inform contemporary stress research is the Meta-Model of
15 Stress, Emotion, and Performance (Fletcher, Hanton, & Mellalieu, 2006). Underpinned by the
16 transactional conceptualization of stress (viz, Lazarus, 1999; Lazarus & Folkman, 1984), stress is
17 viewed as an ongoing transaction between the environmental demands and a person's resources, with
18 strain resulting from an imbalance between these demands and resources. In line with this
19 conceptualization, Fletcher et al. (2006, p. 329) provided the following conceptual definitions: *stress*
20 is an ongoing process that involves individuals transacting with their environments, making
21 appraisals of the situations they find themselves in, and endeavoring to cope with any issues that may
22 arise; *stressors* are environmental demands (i.e., stimuli) encountered by an individual; *appraisals*
23 are a person's evaluation of his or her transaction with the environment; and *strain* is an individual's
24 negative psychological, physical and behavioral responses to stressors. According to this model,
25 stressors arise from the environment that an individual is operating within, are mediated by
26 perception, appraisal, and coping, and consequently, result in various responses and outcomes. This

1 ongoing process is moderated by diverse personal and situational characteristics (viz., Arnold,
2 Fletcher, & Daniels, 2017; Wagstaff, Hings, Lerner, & Fletcher, 2018). This model proposes that
3 negative outcomes occur when an individual uses inadequate or inappropriate coping strategies. With
4 sub-optimal personal well-being and job performance being a consequence of an individual's
5 inability to cope.

6 Before reviewing the dearth of research on sports physiotherapists, it is important to be
7 cognizant of stress research conducted with other members of 'the team behind the team'. In their
8 narrative review, Fletcher and Scott (2010) reported that coaches operate within a complex, ever
9 changing environment that imposes many pressures on them. For example, Thelwell, Weston,
10 Greenlees, and Hutchings (2008) interviewed 11 British coaches and following inductive and
11 deductive analysis procedures identified 182 stressors (e.g., athletes' performances, contractual
12 issues, private life). Subsequent research continues to illustrate the diverse pressures experienced by
13 coaches (Didymus, 2017; Olusoga, Butt, Hays, & Maynard, 2009). Furthermore, these demands have
14 been identified to reduce coach effectiveness (Thelwell, Wagstaff, Rayner, Chapman, & Barker,
15 2017a; Thelwell, Wagstaff, Chapman, & Kentta, 2017b). Turning to the stressors experienced by
16 sport psychologists, Fletcher et al. (2011) interviewed 12 accredited sport psychologists. Five
17 dimensions were identified: factors intrinsic to sport psychology, roles in the organization, sport
18 relationships and interpersonal demands, career and performance development issues, and
19 organizational structure and climate of the profession. Being unable to cope with these demands has
20 been identified to negatively impact practice (Cropley, Baldock, Mellalieu, Neil, Wagstaff, and
21 Wadey, 2016). Finally, research on stress experienced by parents of athletes (e.g., Burgess, Knight,
22 & Mellalieu, 2016; Clarke & Harwood, 2014). Burgess et al. (2016) identified nine overarching
23 demands including competition (e.g., child anxiety, spousal behavior), organizational (e.g., travel
24 arrangements, interactions with other parents), and developmental (e.g., managing child education,
25 social opportunities). Collectively, these findings illustrate that sporting environments are stressful
26 for coaches, sport psychologists and parents; they each experience a wide variety of similar and

1 unique stressors given their specific roles and associated expectations. Furthermore, if these stress
2 experiences are not properly managed, they can have an adverse effect on their own well-being and
3 potentially the athletes they assist.

4 Arnold et al. (2017) illustrated that ‘the team behind the team’ in elite sport typically includes
5 sports medicine personnel (e.g., doctors, physiotherapists), sport scientists (e.g., physiologists,
6 biomechanists) and various other support staff (e.g., performance lifestyle advisors, performance
7 analysts). Of interest in this study are the stressors experienced by physiotherapists working in elite
8 sport. To date, this population has received limited research attention. Of the few studies conducted,
9 one cluster of researchers have included physiotherapists amongst others (e.g., doctors,
10 psychologists) when examining intra- and inter-professional conflicts which can arise due to
11 differences in status and power between different roles (e.g., Collins, Moore, Mitchell, & Alpress,
12 1999; Malcolm & Scott, 2011; McEwan & Taylor, 2010). The challenge with this approach is that it
13 makes it difficult to extrapolate the data from different subgroups. Other groups of researchers have
14 either examined how sports physiotherapists can assist the recovery of injured athletes (e.g., Arvinen-
15 Barrow, Massey, & Hemmings, 2014) or targeted specific professional challenges such as medical
16 confidentiality (e.g., Waddington & Roderick, 2002). For example, Waddington and Roderick (2002)
17 examined how confidential matters are dealt with between the club doctor or physiotherapist and the
18 player as patients in English professional football clubs. It was identified that there was no commonly
19 held code of ethics governing how much and what information about players is passed on to
20 managers, which raised serious implications for dealing with confidentiality in sporting contexts.
21 While this study provides an important and in-depth understanding into one specific professional
22 challenge, by taking a more micro approach it ignores other potential demands experienced by sports
23 physiotherapists.

24 The aim of this study is to explore the stressors experienced in elite sport by physiotherapists
25 and their impact (i.e., emotions, outcomes). The rationale for this study is fourfold: (a) while the
26 stressor experiences of other sport science staff have been examined, physiotherapists working in

1 elite sport have been ignored. This study, therefore, complements previous research and seeks to
2 provide an additional ‘piece to the puzzle’ of the professional challenges experienced by the ‘team
3 behind the team’ (viz., Arnold et al., 2017); (b) stress has been observed to impact the well-being of
4 sporting personnel (viz., Fletcher & Arnold, 2017); therefore, it is critical that we seek to raise our
5 awareness of the stressors experienced by physiotherapists and their impact to ensure their well-
6 being is not being compromised; (c) considering the transactional nature of stress and how strain can
7 be contagious (viz., Hings et al., 2018), it is important to understand physiotherapists’ lived
8 experiences of working in elite sport to identify whether they can impact the well-being and
9 performance of others (e.g., athletes, coaches); and (d) only by understanding physiotherapists’
10 working experiences on the ‘ground’ level can we raise sports organizations’ awareness of whether
11 policies and practices are providing them with a sufficient duty of care (e.g., National Governing
12 Bodies, National Institutes of Sport). Findings can also inform professional societies and regulatory
13 bodies codes of conduct that govern the professional practice of physiotherapists (e.g., Health and
14 Care Professions Council, Chartered Society of Physiotherapy). These potential recommendations
15 have implications for physiotherapists’ personal well-being, performance duties, and the possible
16 impact of physiotherapists’ performance on others (e.g., coaches, athletes).

17 **Method**

18 **Philosophical Beliefs and Sampling**

19 This study was underpinned by interpretivism. That is, ontological relativism (i.e., reality is
20 multiple, created, and mind-dependent) and epistemological constructionism (i.e., knowledge is
21 constructed and subjective) (Sparkes, 1992). Following procedural ethical approval from the
22 University’s Ethics Committee, participants were recruited through maximum-variation, criterion-
23 based, and snowball sampling procedures (Sparkes & Smith, 2014). Maximum variation was chosen
24 to enhance the study’s potential generalizability (i.e., naturalistic generalization and transferability).
25 To clarify, naturalistic generalization is defined as conclusions arrived at through personal
26 engagement in life’s affairs or by vicarious experience so well constructed that the person feels as if

1 it happened to themselves (Stake, 1995). Whereas, transferability within this research is underpinned
2 by interpretivism, therefore it is defined as when an individual or group in one context considers
3 adopting something from another environment which the research has identified (Smith, 2018).
4 Characteristics accounted for to maximize variation were sex, sport, and employment status (i.e.,
5 part-time and full-time). Criterion-based sampling was used to recruit participants who were
6 registered with the Health and Care Professions Council (HCPC) in the United Kingdom and with
7 first-hand experience of working in elite sport. Our rationale for these criteria were to ensure our
8 participants were professionally accredited and ethically qualified to practice physiotherapy. By elite
9 sport, we mean physiotherapists working within environments where athletes are performing at the
10 highest level in their sport (i.e., Olympics, Paralympics, World Cups, World Championships; Swann,
11 Moran, & Piggott, 2015).

12 Ten physiotherapists met the sampling criteria (5 males, 5 females), eight of which were full-
13 time. All participants were working in elite sport, employed by a sport organization and worked on-
14 site. Experiences ranging from three-to-25 years at this performance level (> 80 years' in total).
15 Examples of the participants' working experiences included preparing athletes and working with
16 them at six summer Olympic and Paralympic Games (including 2008 Beijing, 2012 London, 2016
17 Rio de Janeiro), Commonwealth Games, World Cups, and World Championships. Sports were varied
18 and included men's and women's team and individual sports. In the interest of preserving the
19 anonymity of individual participants, the sports are not identified and any specific information that
20 could identify them or others they have worked with have been omitted.

21 **Data Collection**

22 Following ethical approval, participants who met the sampling criteria or were referred by
23 previous participants to represent information rich cases (i.e., snowball-sampling) were contacted
24 via email by the first author, informed about the study and invited to participate. All participants
25 agreed to participate and provided written informed consent. To collect data on their experiences of
26 working in elite sport, a semi-structured interview was chosen (see *Confessional Tale* subsection).

1 Our rationale for using this method of data collection was that it would provide the participants with
2 the freedom to discuss their experiences, while also ensuring areas of interest pertinent to the study
3 were discussed (Sparkes & Smith, 2014). An interview guide was developed for the purposes of this
4 study; it included questions such as, “Can you tell me what it’s like working in elite sport?”, “What
5 demands do you experience in a training environment?”, “What demands do you experience at a
6 major international event?”, and “What effect do these demands have on you?” Questions were
7 contextualized around training, competition, season/off-season, and work-life balance. Elaboration
8 and clarification probes were used to elicit more information and ensure understanding. All
9 interviews were conducted by the first author; three of the 10 interviews were conducted face-to-face
10 (two in a private setting and one at a public café, at the request of the participant). The remaining
11 interviews were conducted on the telephone to accommodate for the participants’ busy schedules.
12 No interviews were conducted at their place of work due to the potentially contentious nature of the
13 discussion (McEwan & Taylor, 2010). All interviews were audio-recorded to provide a complete and
14 accurate account of what was discussed. The interviews ranged from 59 minutes to 111 minutes
15 ($M=81.8$ minutes, $SD=18.5$).

16 **Data Analysis and Rigor**

17 Inductive thematic analysis was used by the first author to analyze the data (Braun, Clarke,
18 & Weate, 2016). From the outset, the first author familiarized herself with the data. This involved
19 transcribing the data, repeat reading of the transcripts, and noting down initial ideas. Codes were
20 then generated by highlighting interesting features of the data in a systematic fashion across the entire
21 dataset (e.g., “pressure”, “expectations”, “tension”, and “making tough decisions”). The next phase
22 involved collating codes into potential themes such as “Tough decisions at competition”. Provisional
23 themes were then reviewed in relation to the coded extracts, the entire data set, and the overall story
24 they tell about the participants’ experiences. Clear definitions and concise and punchy names for
25 each theme were then identified (e.g., ‘Under the Microscope’). This resulted in five themes that
26 were refined, defined and named. Finally, producing the report involved ensuring the write up

1 provided a concise, coherent, logical, non-repetitive, and interesting account of the data, with vivid,
2 compelling extract examples.

3 Guided by a relativist approach for judging the rigor of qualitative research (Sparkes &
4 Smith, 2014), the authors invite readers to consider several quality indicators including the
5 worthiness of the topic (e.g., timeliness and significance), rich rigor (e.g., appropriate sample),
6 credibility (e.g., thick description), sincerity (e.g., transparency), and significant contribution and
7 coherence of the work. Aligning with these indicators and to enhance the study's methodological
8 rigor and generalizability (Smith & McGannon, 2017), two techniques were used. First, a reflexive
9 journal (i.e., introspective reflexivity) was kept by the first-author to situate her own personal
10 identities and to explore the surprises and un-doings in the research process (i.e., unexpected turns
11 in the research, see *Confessional Tales*), with herself ultimately becoming the site of analysis and the
12 subject of critique (McGannon & Metz, 2010). These reflections were also shared with the co-authors
13 (i.e., intersubjective reflexivity) at regular intervals. Thus, the first author presented her
14 interpretations of the data on a regular basis to the co-authors who provided a sounding board to
15 encourage reflection upon, and exploration of, alternative explanations and interpretations. As part
16 of this process of critical dialogue, the first author was required to make a defensible case that the
17 available data supported her interpretations. For example, the first author debated the titles of the
18 themes with the co-authors, to ensure they were concise, punchy and immediately gave the reader a
19 sense of what the theme was about (Braun & Clarke, 2006).

20 Second, *external reflections* were sought from physiotherapists working in elite sport who
21 did not participate in this study (viz., Wadey & Day, 2018). Specifically, three physiotherapists (2
22 female, 1 male) were contacted who were currently working full-time in elite sport. They were
23 informed of the aim of the study and that we were interested in sharing our research findings and
24 gaining their feedback. All agreed to participate, and a time and location was decided upon to meet
25 face-to-face. To enable the physiotherapists to share their responses in an open group discussion, a
26 focus group format was decided upon (Krueger & Casey, 2000). Facilitated by two co-authors, the

1 focus group started by describing the study's aim and methods. Then, each identified theme was
2 defined and described using verbatim quotations. Following each theme, the physiotherapists were
3 asked: What is your immediate reaction to this theme and why? The co-authors facilitated subsequent
4 discussion using curiosity-driven follow-up questions (Sparkes & Smith, 2014). After all the themes
5 had been discussed, the physiotherapists were finally asked: Which theme attracted your attention
6 the most and why? The focus group lasted 56 minutes and was recorded. The discussions illustrate
7 how the participants found the themes to resonate with their experiences. Rather than thinking *about*
8 the themes, it was clear the participants thought *with* the themes. The physiotherapists reported
9 physical feelings (e.g., I can feel my body tightening), emotions (e.g., anger, sadness, complacency),
10 and told stories of their own and other people's experiences. Central within these dialogues was how
11 the physiotherapists could identify with and incorporate their own experiences into the themes. One
12 reported:

13 As you read them out, I can feel myself nodding. It's a tough profession. Glamour of sport
14 aside, it's tough. The *I am not a Machine* theme stood out for me. I really felt for the
15 participants, as I know what that feels like. Like, you're just going through the motions. And,
16 the *This is Sport* theme. Yes, it's like we operate in a bubble in sport. Being a physio in sport
17 is so different from working outside of sport. That's why there's a high turnover of staff. We
18 can't keep ignoring that physiotherapists have lives outside of sport.

19 **Confessional Tale**

20 To help "lift the veil of public secrecy surrounding fieldwork" (Maanen, 1988, p. 91), we
21 herein include three confessional tales resulting from introspective and intersubjective reflexivity
22 (Finley, 2002). The first confessional tale, *The Snowball Effect*, is concerned with the challenges of
23 gaining access to hard-to-reach populations. Indeed, the first author wrote numerous emails, made
24 dozens of calls, and approached several physiotherapists through social media (i.e., Twitter) for over
25 three months to no avail, leading to heightened feelings of frustration. Yet, through mobilizing the
26 co-authors' social capital, she identified one physiotherapist who was willing to participate, whom

1 provided access to many of the other participants. The first author reflected, “Such a relief. A fitting
2 example of the power of snowball sampling. It operated like a domino effect; access to just one
3 participant opened up access to so many others.” The second confessional tale, *Aligning the Method*
4 *with the Participant*, reflects the difficulties with using certain qualitative methods. At the outset of
5 this study, the first author aimed to use qualitative surveys, diaries, and interviews. Yet, she soon
6 realized that surveys and diaries would be ineffective with this population. One participant reported,
7 “Surveys won’t work. We fill these out all the time; sick to death of them ... As for diaries, we just
8 don’t have the time. If you want to find out what it’s like to be a physio, just talk to us.” The final
9 confessional tale, *Knowing Your Ethics*, reflected the participants’ concerns with how the data would
10 be stored and used. Although the consent form and information sheet provided information on this,
11 the participants wanted to know a great deal more due to the elite sports they worked with. This
12 dialogue with them led to more in-depth discussions on safeguarding their identities (e.g., not
13 disclosing their sport and significant others), whilst also being mindful of mistaken identity (Mellick
14 & Fleming, 2010).

15 Results

16 Five main themes were identified that described the stressors experienced in elite sport by
17 physiotherapists. The first theme, *I am not a Machine*, reflects sports physiotherapists’ workload and
18 working hours. The second theme, *This is Sport*, reflects the demands of being a physiotherapist
19 working in a performance-and-risk orientated culture. The third theme, *Relationships are Messy*,
20 represents the conflicts of working with elite athletes and in a multidisciplinary team. The fourth
21 theme, *Under the Microscope*, concerns; having to make the ‘right’ decision under intense external
22 pressures. The final theme, *Beyond one’s Remit*, reflects moral and ethical conflicts imposed upon
23 them. Within each theme, stressors (i.e., environmental demands) and consequences (e.g., emotions,
24 outcomes) are represented together to provide more compelling insights into the participants’
25 experiences.

26 **I am not a Machine**

1 This theme reflects the participants' workload and working hours (e.g., 'too much work',
2 'working 24/7', 'not enough hours in the day', 'working beyond my contractual hours'). Both of
3 which were voluminous, unexpected from the outset of their career, and unpredictable over time.
4 Participants reported, 'continually spinning plates', 'juggling demands', 'trying to stay afloat', and
5 'surviving rather than thriving'. One participant expressed, "There are no set hours; it's a twenty-
6 four hour day, and your phone's always on because athletes will ring you whenever they want. It's a
7 juggling act between meeting their needs and your own". This led the participants to express that
8 they were being treated as 'machines' or 'robots' rather than living and breathing human beings. The
9 associated stressors that significantly added to their workload and working hours were travel (e.g.,
10 having to make travel arrangements, too much travelling), scheduling (e.g., 'changes to competition
11 schedules', 'extra games', 'more training'), limited staff (e.g., having to do two jobs, too little staff),
12 and always being required to do more and having to work unsocial hours and days. One participant
13 reported:

14 You can end up working seven-day weeks. Plus, Christmas Day, Boxing Day, New Year's
15 Eve, and New Year's Day. Your life revolves around a fixture list [upcoming matches]...It's
16 a difficult profession. You can't plan-ahead because everything can change. Games can get
17 rescheduled. You could do well in a Cup run and have extra games. You could have a cluster
18 of injuries. The manager can decide to suddenly take the team abroad. You have no real
19 control over your own time, your own life. You're pulled in different directions and that
20 brings with it stress and anxiety; a feeling of letting people down all the time. It's okay for a
21 while but it can become overwhelming.

22 Consequences of such a high workload and working hours were psychological strain (e.g.,
23 anxiety, anger, frustration, burnout, demotivation), physical strain (e.g., tiredness, headaches), lack
24 of personal care (e.g., reduced exercise, poor diet), work-life conflict (e.g., lack of time for friends,
25 family, oneself), shallow working alliances with others, and becoming someone they were not (e.g.,
26 inauthenticity, alienation of the self). To expand on the latter two consequences, participants

1 expressed that when they started working in elite sport, they were ‘excited’, ‘motivated’, ‘eager’, and
2 above all it was, ‘a dream job’ for them. They were passionate about sport, enthusiastic about
3 working within a multidisciplinary team, and were motivated to help support the physical well-being
4 of elite athletes. Transactions with injured athletes reflected care, compassion, respectfulness, and
5 personal responsibility; qualities the participants had in abundance. After all, possessing and
6 embodying these qualities is why they reported joining the profession in the first place. However,
7 with an ever-increasing workload, which they had not fully anticipated or expected, the makeup of
8 these transactions changed to ones that were devoid of care and compassion. For example, rather
9 than listening, understanding, and empathizing with injured athletes’ physical symptoms as well as
10 their fears and implications associated with being injured, they saw injured athletes’ bodies as
11 machines that needed to be repaired quickly and efficiently. Not only did this impact their
12 transactions with others, but it also themselves (e.g., ‘I didn’t recognize myself’). One participant
13 reported:

14 I’ve always been a pretty caring and compassionate person. It’s why I joined the profession
15 in the first place. I wanted to help athletes ... But, the workload is horrendous. It changed
16 me. I became far less caring. Some days, I didn’t recognize myself. I didn’t like who I was
17 becoming. The way I interacted with injured athletes. I just repaired them. Like a machine
18 that needed to be fixed; a mechanic rather than a physio. The time demands I was under
19 didn’t allow the time to nurture them back to full health. They want everything yesterday!
20 ... I got to the point where I just didn't want to do the job anymore. They’d literally taken
21 everything from me that I had to give, and they were still asking for more. If this is what it’s
22 like to work in elite sport, I don't want to be a part of it; it's not for me. I am *not* a machine.

23 **This is Sport**

24 This theme represents the challenges of being a physiotherapist working in a performance-
25 and-risk orientated culture (e.g., ‘ruthless pursuit of success’, ‘it’s all about winning’, ‘sport comes
26 first’, ‘sport is life’, ‘play through injury’, ‘injury is part and parcel of sport’), where success is valued

1 above and beyond other factors (e.g., athlete well-being, staff satisfaction, life outside of sport).
2 Participants detailed how the expectation for sporting success within this culture was a constant and
3 unrelenting demand that was considered part-and-parcel of working in elite sport. One participant
4 expressed, “Sport is a high-pressure environment. There are a lot of expectations on clubs to do well;
5 it's a results-based business, where managers are only one result away from getting fired. It creates
6 stress that permeates down through the club at every level.” The respective stressors resulting from
7 these cultural messages were the constant expectation on physiotherapists to prioritize sport in their
8 lives (e.g., ‘Sport has to come first’) and relegate other areas of their lives (e.g., friends, family,
9 hobbies, interests). This culture also led to pressures of coercing athletes to play injured and through
10 pain (‘They are paid to play’), ‘fixing’ less severe injuries quickly by whatever means necessary to
11 maintain standards of performance (e.g., ‘Just do whatever it takes to ensure he’s ready to play this
12 Saturday’), and expediting recovery from more severe injuries to minimize for potential declines in
13 performance (e.g., ‘They want everything yesterday’). These demands were exacerbated, especially
14 leading up to and during international competitions (e.g. Olympics, Paralympics), when ‘star’
15 performers were injured, when coaches were under pressure to perform, and following a defeat or a
16 run of poor results. One participant reported:

17 There’s more than one way to develop an Olympic Champion but coaches who have had
18 medalists in the past have their own recipe for success. They want athletes pushing the
19 boundaries to see if they can go a little bit more because those that do are more likely to
20 succeed. As a physio you are there to support the athlete and the coach but there’s always
21 challenges around injuries and people wanting athletes back before it's safe or wanting
22 everything done quicker than physically possible. That’s the environment we work in.

23 The participants reported that the consequences of working in this performance-and-risk
24 orientated environment were psychological strain (e.g., ‘a weight of expectation’, ‘excessive
25 pressure’, ‘emotional exhaustion’, ‘feeling inadequate’, ‘suppress my emotions’), lack of personal
26 fulfillment (e.g., one’s own professional development overlooked by performance outcomes),

1 expressing interpersonal messages that reflect cultural norms rather than injured athletes' well-being
2 (e.g., 'Some things I've said, like rationalizing injury and pain, I now realize I didn't have the well-
3 being of the injured athlete at heart'), job insecurity (e.g., 'if I don't do it, I know I'll get replaced'),
4 and work-life conflict (e.g., professional commitments overriding personal interests). Expanding on
5 the latter consequence, the participants reported that the performance-oriented culture perpetuated
6 that it was a privilege to be working in elite sport and how 'lucky' they were. Consequently, they
7 should prioritize sport above and beyond other aspects of their lives. Indeed, sport was portrayed by
8 the participants as an 'all or nothing phenomenon'; you either give it your all or you get out. If you
9 don't give it your all, you can be easily replaced by someone that will. These discourses led the
10 participants to prioritize sport above themselves, their family, and their relationships, which led to a
11 poor work-life balance. This consequence coupled with others (e.g., emotional suppression and
12 exhaustion) led to frequent internal battles between the cultural-social values and their own personal
13 values, with some deciding to align theirs with the performance-oriented culture and others deciding
14 to leave sport altogether. One participant reported:

15 This is sport. It's about winning. You either put up, shut up or get out. I've seen several
16 excellent physiotherapists come and go particularly female physiotherapists. It saddens me
17 that sport can't accommodate someone wanting to start a family. Ultimately, I think it is to
18 the detriment of the sports because there are some very good physiotherapists that I've seen
19 leave. I just can't see how it'll change. It's always been like this. This is sport. Sport has to
20 come first. I understand why they've left because I'm feeling like that now; I've got a young
21 family and because my daughter is born in the summer I've missed her first eight birthdays
22 and I'm realizing the affect it has on my family and particularly on my daughter.

23 **Relationships are Messy**

24 This theme represents the conflicts of working in a multidisciplinary team and with elite
25 athletes (e.g., 'who to trust', 'power relations', 'work politics', 'blurred lines'). Although not
26 mutually exclusive, these conflicts can be divided into those with the coach (i.e., coach-

1 physiotherapist relationship), other staff members (e.g., doctors, fellow and more senior
2 physiotherapists, psychologists, nutritionists, strength and conditioning coaches), and elite athletes
3 themselves. Indeed, the coach-physiotherapist dyad was reported to be demanding, temperamental,
4 and in constant flux. Demands identified were operating in a power-relationship (e.g., ‘they dictate
5 what I do’, ‘everything must go through the coach’, ‘they overrule me’), coach’s character (e.g., he’s
6 a man’s man, the coach is controlling), communication style (e.g., “they shout at me’, ‘they belittle
7 me in front of others’, ‘they won’t listen to me’), and expectations (e.g., ‘they expect me to be a
8 miracle worker’, “they demand so much from me’). For example, one participant reported, “You
9 come into this environment with qualifications, but you're patronized by coaches, who are earning
10 more money than you, but they don't have a scientific background.” When it comes to working with
11 other sport science staff, this was also identified to be highly demanding, with high staff turnover
12 (e.g., ‘it’s like a revolving door at our club’), cliques forming within multidisciplinary teams, role
13 ambiguity between professions, and rivalry between staff (e.g., ‘it’s not nice to be stabbed in the
14 back’). As one participant reported, “What often leads to butting of heads is everyone has their own
15 agenda. Everyone’s trying to prove their worth, trying to influence people’s opinions behind closed
16 doors, but they can end up stabbing you in the back in the process”. Finally, the physiotherapist-
17 athlete dyad was replete with demands, which related to rehabilitation adherence (e.g., ‘doing too
18 much’, ‘doing too little’), disclosure (e.g., ‘they tell me everything’, ‘I find it quite overwhelming
19 how much they do tell me’), ignoring medical advice (“Some athletes think they know better”),
20 ‘needy’ athletes (e.g., “oh here comes another one she's broken her finger nail”), seeking alternative
21 health care (e.g., ‘If athletes don’t like what I tell them, they’ll go elsewhere’), toeing the line between
22 friendship and a professional relationship (e.g., ‘It’s always tough getting that balance right’),
23 concealing pain (e.g., ‘Athletes lie to me all the time’), injury (e.g., ‘I just hate to see them injured’),
24 inappropriate behavior (e.g., “Some of them flirt with me”), and inappropriate comments (e.g., ‘Ooh,
25 that’s the spot love’). One participant expressed, “You get, ‘God your tits look big in that love’ and
26 all that. Some days its fine, but other days it can be too much. Yes, I have tits, now how can I help?”

1 Consequences of these demands were psychological strain (e.g., ‘anger’, ‘boiling point’,
2 ‘overthinking’, ‘devastation when an athlete gets reinjured’), relationship breakdown (e.g., ‘we don’t
3 speak anymore’, ‘the trust is gone’, ‘I have no one to turn to’, ‘I keep my thoughts and feelings to
4 myself’, ‘It’s hard to switch off sometimes’), and emotional labor (e.g., ‘I play the part’, ‘I just smile
5 and nod’). To provide an example of these consequences, the participants reported being
6 psychologically impacted when their athletes got injured. Examples include, ‘guilt’, ‘despair’,
7 ‘wanting to cry for them’, and ‘a huge sense of frustration’. Yet, despite experiencing this emotional
8 cocktail, they reported suppressing these emotions by wearing a proverbial veil to manage the
9 athletes’ emotional response to their injury, as well as maintaining the athlete’s, coach’s and parents’
10 hope that they will recover and ultimately return to sport. Indeed, playing sport for many athletes is
11 a ‘dream come true’ and the only career path they have ever known; knowing this, the participants
12 knew how much the sport means to them and the likely impact of injury. This led to internal struggles
13 between what they were feeling and what they were expressing, which resulted in taking their
14 emotions home with them. One participant reported:

15 I felt devastated. I had to take a player to the hospital and constantly reassure him that it was
16 going to be okay, but obviously I didn’t have a diagnosis yet. I had his parents run in and ask
17 me questions because they were scared and wondering what’s going on. You build such a
18 close relationship with these athletes because you see them day in and day out. So, it affects
19 you deeply when they get injured. You don’t just go home and switch off; you think about it
20 constantly. But, then the next morning you’ve got to move on and forget about it because
21 you can’t put your worries onto other athletes.

22 **Under the Microscope**

23 This theme reflects the challenges of having to make the ‘right’ decision under intense
24 external pressure (e.g., media, spectators, coaches, other support staff, athletes), where emphasis on
25 making a ‘correct’ decision was not just a question of a medical assessment but to do what is ‘right’
26 in the context of the sport and for the athlete themselves. As one participant expressed, “It is

1 challenging to make the ‘right’ decision when you’ve got to also understand the context of the
2 situation and what the athlete needs and wants from you. It’s not only a clinical decision, it’s a
3 collective decision”. Participants reported that every decision they made (e.g., ‘whether an athlete
4 should continue playing’, ‘whether an athlete is fit for an upcoming competition’, ‘whether to take
5 an athlete off during a crucial time in a game’) was scrutinized from every angle. The pressure came
6 from various domains: (a) the *media* whom have a vested interest in who does and does not compete
7 and also show physiotherapists’ actions live on television (e.g., pitch-side first aid); (b) millions of
8 *spectators* watching on television and in the crowd, as well as other physiotherapists who are
9 critically watching their actions; (c) the critical eye of the *coach* and other support staff who are
10 under ever-increasing pressure to bring about positive performance outcomes; and (d) the *athletes*
11 themselves who have invested significant amounts of time and effort to perform at international
12 sporting events, which hold a great deal of meaning to them. Participants reported how making the
13 ‘right’ judgement call was complex and multilayered, for reasons such as minimal time (e.g., during
14 a match, right before kickoff), during a critical moment (e.g., final stages of a match, before an
15 Olympic event), or when there were lots of grey-areas (e.g., invisible injuries, emotional acting). One
16 participant recalled:

17 I remember the first time I did an international game. I ran onto the pitch to treat this player.
18 Not only was there were over 80,000 spectators, I think there was over five million watching
19 on the television and five hundred of which are probably physios watching what I’m doing,
20 all ready to criticize. Not only that, you’ve got the coach screaming in the headset or directly
21 in your ear. You’ve got the referee stood there saying, “What’s going on?”. And, not
22 forgetting, you've got the player you’re trying to have dialogue with, as well as other players
23 coming to ask you things. You've almost got to make a judgement call in 30 seconds. You
24 really do feel under the microscope.

25 Consequences of these demands were physical strain (e.g., ‘heart was racing’, sweating
26 profusely’) and psychological strain (e.g., ‘anxious’, ‘restless’, ‘fear of getting it wrong’, ‘always

1 feeling on edge', 'fear of being punished', 'what if this, what if that'). Expanding on these
2 consequences, the participants reported that making the 'right' decision within a demanding
3 environment led to anxiety-related symptoms before, during, and after having made a decision. This
4 anxiety was largely because of what they described as a 'catch-22 situation'; do they do what is best
5 for the welfare of the athlete and risk being blamed and ostracized or do they listen to what the coach
6 and athlete want and risk the potential for more injuries to occur? This consequence coupled with
7 others (e.g., physical and psychological strain) led to frequent internal battles. One participant
8 expressed:

9 If you say, "Yes, he's fit" and then he comes off injured after five minutes, you're getting it
10 in the neck because you've wasted a substitution. But then if you say, "No, he's not fit" and
11 then 10 minutes later he goes, "But, I feel fine now", you're getting it in the neck. It's not a
12 comfortable environment to be in, you're always on edge and second guessing yourself.

13 **Beyond one's Remit**

14 This theme encompasses the moral and ethical conflicts that can arise as a healthcare
15 professional working within elite sport (e.g., 'influencing the outcome of a game', 'breaking patient
16 confidentiality', 'conflicts of interest', 'unsporting behavior'). Indeed, participants reported that they
17 were continually put in situations that were beyond their remit (e.g., area of authority or
18 responsibility), which were not taught during their education or further professional development
19 courses. Rather they reported that they were left to navigate these complex and unsettling dilemmas
20 using their own professional judgement. Participants detailed how they felt they were 'morally
21 conflicted' and had to toe the line between being a health care professional and an employee of a
22 sport organization, which was intensified by the context in which these decisions were made (i.e.,
23 they largely operated in a sporting environment rather than their own home or private practice) and
24 by power-relations (e.g., athletes were described as their employers as well as coaches). As one
25 participant expressed, "You are there to support the athletes, but that can give some athlete's a sense
26 of entitlement and they feel as though you basically belong to them, like they own you". The

1 stressors that encompassed this theme were operating in an open environment (e.g., ‘it’s an open
2 door policy’, ‘everyone wants to hear or know what has been said’, ‘you often end up treating athletes
3 in front of everyone’), maintaining patient confidentiality when coaches and directors want to know
4 what is happening (e.g., ‘they’ll ask you over and over to tell them what’s been said’, ‘what one
5 athlete has told me could impact on another, what should I do?’), being asked to influence the game
6 (e.g., ‘say the knock looks worse so the other team gets punished’, ‘run on so we can slow the game
7 down’), and being asked to do something illegal or against the laws of the sport (e.g., ‘it was overcast
8 and they wanted sunscreen; I thought nothing of it until I saw them rubbing it onto the ball’).
9 Ethically, all the participants were bound by codes and conducts as healthcare professionals but often
10 reflected to what extent they had obligations to the sport organization they are employed by. One
11 participant reported:

12 One of my athletes told me they'd just done a doping test, but they'd smoked marijuana the
13 night before. They weren't testing for that, so it didn't matter, but then you've got an ethical
14 consideration that the athletes come to you and shared this information. So, if that was a
15 performance enhancing drug, what would you do? Athlete says, “You can't tell the coach”.
16 However, from the sports perspective if that athlete did win a medal, got tested, the medal
17 got removed, and I knew about it, so much goes through your mind. Do I respect the athlete’s
18 confidence? Do I tell the sport organization? What’s going to happen to everyone involved?
19 What’s going to happen to me?

20 The consequences of going (or not going) beyond one’s professional boundaries caused the
21 participants to report psychological strain (e.g., ‘anxious’, ‘restless’, ‘mentally exhausted’,
22 ‘nervousness about going into work’, ‘feeling alone’), physical strain (e.g., ‘physically fatigued’),
23 concerns about job security (e.g., ‘if I do this I could lose my job, reputation, and livelihood’, ‘if I
24 don’t go along with this, I’ll be fired’), and quitting their job (e.g., ‘I couldn’t do this anymore, I had
25 to quit’). Expanding on these consequences, the participants reported that although working in elite
26 sport was seen to be the ‘pinnacle’ of their careers; they soon realized that there was a darker side to

1 sport which cannot be ignored. On the one hand, sport was portrayed by the participants as this entity
2 that has strict rules and regulations; do things by the book or you will be found out and lose your
3 professional status. Yet, on the other hand, the participants expressed on many occasions where they
4 were asked to do things beyond their professional boundaries, where rules and regulations were open
5 to interpretation and more complex 'in the field' than written down in a formal code of conduct. This
6 led some of the participants to feel their ethical and moral boundaries had been compromised, which
7 ultimately led them to leaving their job. One participant explained:

8 I was really nervous about going into work because I was starting to reach the point where I
9 wasn't supported in what I was doing or the decisions that I was making. So, for me the
10 pressures were starting to come through, if I go along with this, then I could lose my
11 professional registration, reputation; I've still got bills to pay at home, I've got to pay my
12 mortgage, keep the roof over my head. It was eventually coming to that point of making that
13 decision of well actually it is just a job; although there's all this nice romanticism of being
14 involved in sport at the end of the day you are a practitioner and you have set standards. I had
15 reached boiling point, I did what I thought was right even if it meant losing my financial
16 security, but not everyone will make this decision.

17 Discussion

18 For some time now, researchers have focused on the environmental demands athletes
19 experience and their consequences (e.g., Neil, Hanton, Mellalieu, & Fletcher, 2011; Nicholls, Holt,
20 Polman, & Bloomfield, 2006). Extending this body of research, contemporary scholars are now
21 focusing more attention on the professional challenges encountered by 'the team behind the team'
22 (Arnold et al., 2017; Hings et al., 2017). To date, researchers have conducted research with coaches,
23 parents, and sport psychologists (Burgess et al., 2016; Didymus, 2017; Fletcher et al., 2011). Yet, one
24 population that has received limited research attention in elite sport is physiotherapists. This study
25 therefore provides a timely and novel exploration into the stressors experienced by physiotherapists
26 working in elite sport. The findings suggest that physiotherapists operate in complex environments

1 that impose many pressures on them at various levels: cultural (e.g., performance- and risk-orientated
2 culture), institutional (e.g., working hours), interpersonal (e.g., interpersonal conflict), and
3 intrapersonal (e.g., conflicts with personal values). Consistent with the Meta-Model of Stress,
4 Emotions, and Performance (Fletcher et al., 2006), these stressors were identified to have
5 consequences that included physical, psychological, and behavioral strain (i.e., burnout,
6 demotivation, physical tiredness, lack of personal care) and destructive outcomes such as relationship
7 breakdown and inauthenticity. Furthermore, stressors and consequences were impacted by personal
8 and situational factors (e.g., media, spectators, personal values). To expand on these findings, each
9 of the five identified themes will now be discussed in relation to previous research.

10 The first theme, *I am not a Machine*, reflects the participants excessive workload and working
11 hours (e.g., ‘working 24/7’, ‘working beyond my contractual hours’), resulting from travel
12 commitments, frequent changes to training and competition schedules, and the ratio of athletes to
13 physiotherapists being typically large. These stressors have been reported by coaches and sport
14 psychologists before (Didymus, 2017; Fletcher et al., 2011). Clearly, sporting organizations need to
15 reflect on physiotherapists’ contractual workload and working hours and how they align with what is
16 happening at the ‘ground’ level. After all, an improved work-life balance has been observed to be
17 conducive to employees’ health and well-being, productivity, job satisfaction, and organizational
18 performance (cf. Haar, Russo, Sune, & Malaterre, 2014).

19 Yet, an improved work-life balance will ‘go against the grain’ of the performance-oriented
20 climate that dominates elite sport, which is reflected in the second identified theme: *This is Sport*.
21 This theme is concerned with the performance-and-risk orientated culture in elite sport. Although
22 previous research has illustrated how this culture negatively impacts athletes’ and coaches’ physical
23 and psychological well-being (Cavallerio, Wadey, & Wagstaff, 2016; Douglas & Carless, 2009), the
24 resultant stressors played out somewhat differently for physiotherapists. These cultural discourses
25 imposed demands on physiotherapists to coerce athletes to play with injury and through pain, ‘fix’
26 less severe injuries quickly by whatever means necessary to maintain standards of performance, and

1 expedite recovery from more severe injuries to minimize for potential declines in performance. This
2 theme not only resonates with Waddington's (2000) claim that athletic performance has become an
3 important part of the *raison d'être* of sport medicine (cf. Roderick, Waddington, & Parker, 2000;
4 McEwan & Taylor, 2010), but also reinforces the pioneering work of Howard Nixon II (1992, 1993,
5 1994) that illustrated how cultural messages (e.g., cultural value that links pain tolerance to the
6 demonstration of masculinity) embedded in athletic subcultures have the potential to impact, for
7 example, interpersonal exchanges between physiotherapists and injured athletes (e.g., "injuries and
8 pain are part of the game"). Thus, interpersonal messages encourage a kind of overconformity to
9 cultural norms (Hughes & Coakley, 1991).

10 The third theme identified, *Relationships are Messy*, represents the conflicts of working in a
11 multidisciplinary team and with elite athletes. Specifically, this theme illustrates novel insights into
12 the professional challenges physiotherapists experience working with other staff members (e.g.,
13 doctors, physiotherapists, psychologists), as well as within specific dyads such as the coach-
14 physiotherapist and athlete-physiotherapist relationship. Despite some previous research existing on
15 the challenges of working within a multidisciplinary team (see Arnold et al., 2017; Hings et al., 2017),
16 research examining the coach- and athlete-physiotherapist dyads has received limited research
17 attention in the sport psychology literature. Drawing from sport sociology, a few studies have alluded
18 to some of the interpersonal challenges that physiotherapists experience with coaches (Waddington,
19 2000; Malcolm & Sheard, 2002) and athletes (Kotarba, 1983; Safai, 2003; Walk, 1997). For example,
20 one of the stressors identified by the physiotherapists in this current study was 'needy' athletes who
21 frequently complained about aches and pains. This stressor resonates with a study by Kotarba (1983)
22 whom explored chronic pain among professional athletes and identified that 'needy' athletes, or what
23 he labelled as "nongamers", were a significant burden on trainers. Yet, despite supporting some of
24 the extant studies conducted in this area, novel insights were also identified. For example, analysis
25 revealed that observing athletes get injured was a stressful experience for physiotherapists, which
26 triggered feelings of guilt, anger, and frustration. This finding resonates with recent research in the

1 sport psychology literature that has examined the concept of vicarious trauma with athletes and
2 coaches (Day, Bond, & Smith, 2009; Martinelli, Day, & Lowry, 2016). Clearly, stress management
3 interventions in sport should not only focus on athletes, but also target members of the ‘team behind
4 the team’.

5 The fourth identified theme, *Under the Microscope*, reflects the challenges of having to make
6 the ‘right’ decision under intense external pressure. This pressure was identified to come from various
7 sources, including the media, spectators, coach, and athletes. Yet, while previous research has
8 illustrated that coaches, parents, and sport psychologists also report experiencing anxiety-related
9 symptoms due to competition-related stressors (Burgess et al., 2016; Didymus, 2017; Fletcher et al.,
10 2011), it is interesting to note that despite these observations, there is an imbalance in the sport
11 psychology literature, with the majority of research focusing on and providing recommendations for
12 athletes (Mellalieu, Hanton, & Fletcher, 2009). Consequently, there is limited specific
13 recommendations for managing anxiety-related symptoms by those individuals operating in sport
14 science and management roles in elite sport. This omission is perhaps particularly pertinent in the
15 sport performance environment, since it seems reasonable to assume that physiotherapists should
16 reframe from displaying or expressing any anxiety-related symptoms due to the potentially
17 deleterious performance effects of emotional contagion (cf. Hings et al., 2017).

18 Adding to these external and internal pressures is the final theme: *Beyond One’s Remit*. This
19 theme reflects novel moral and ethical conflicts that can arise as a healthcare professional working in
20 elite sport (e.g., confidentiality, gamesmanship, drug use). While research has focused on the ethical
21 challenges experienced by physiotherapists in private practice (viz., Praestegaard & Gard, 2012), far
22 more research is needed in sport to grapple with these complex issues (for an excellent example, see
23 Waddington & Roderick, 2002). Despite some potential crossover between private practice and sport,
24 there are likely to be many noticeable differences. To illustrate, a physiotherapist reported, “In private
25 practice, my modus operandi is to cure the injury. In professional football, my modus operandi is to
26 get the player on the pitch as quickly as possible” (Roderick et al., 2000, p. 172). It is important to

1 note, however, that the physiotherapists in this study reported that they were not taught how to grapple
2 with these moral and ethical conflicts during their education or subsequent professional development
3 courses. These findings, therefore, not only have implications for sporting organizations, but also
4 higher education institutions, professional societies and regulatory bodies. Future research should
5 investigate innovative methods of using scenarios to teach about ethics in education through, for
6 example, confessional tales of physiotherapists ‘in the field’.

7 Another novel finding in this study are the consequences of the stressors that have been
8 identified. Using the Meta-Model of Stress, Emotions, and Performance (Fletcher et al., 2006) to
9 interpret our findings, participants reported negative strain (e.g., anger, frustration) and negative
10 outcomes (e.g., job termination, ill-being, and work-life conflict). Many of these consequences do
11 resonate with practitioners in other sport science and management roles (viz., Arnold et al., 2017).
12 For example, one prevalent consequence was the impact of these stressors on the physiotherapists’
13 broader lives, resulting in a poor work-life balance. Drawing from organizational psychology
14 (Cooper, Dewe, & O’Driscoll, 2001), there are a number of ways in which psychologists could
15 support individuals experiencing work-life conflict, such as enhancing social support, increasing
16 personal control, and developing appropriate coping strategies. Furthermore, sporting organizations
17 have a critical role to play here too, especially regarding their policies and practices. Another
18 prevalent consequence experienced by physiotherapists that extends previous research on the ‘team
19 behind the team’ is shallow working alliances with others. That is, transactions with others, although
20 initially reflexive of care, compassion, respectfulness, and personal responsibility, with the ever-
21 increasing workload and working hours, became devoid of care and compassion. This can be
22 interpreted by drawing on the concept of the *artificial person*. According to Wolgast (1992), artificial
23 persons are those who “speak an act in the name of others, (who) can commit and obligate them” (
24 p. 1). Put another way, artificial persons are followers of orders and speak on behalf of institutional
25 procedures and organizational rules (viz. Lindsay, 2008; Soundy, Roskell, & Smith, 2013). In the
26 case of the physiotherapists in this study, shallow working alliances were the result of the external

1 environmental, which not only affected their transactions with others but also with themselves.
2 Participants reported they were becoming, or had become, someone they were not (viz. Wood, Linley,
3 Maltby, Baliousis, & Joseph, 2008), with some participants leaving the profession.

4 **Applied Implications**

5 Although more research is needed with this population, this study offers several preliminary
6 applied implications from the identified themes. One model that may be useful in framing these
7 implications is the *Multilevel Model of Sport Injury* (MMSI; Wadey, Day, Cavallerio, & Martinelli,
8 2018), which accounts for five distinct, yet relational levels of analysis. The first level, *Intrapersonal*,
9 reflects the characteristics of the physiotherapists and his or her thoughts, feelings, and behaviors.
10 Drawing from the stress literature in sport; professional development opportunities that raise
11 physiotherapists' awareness of how to appraise stressors as a challenge rather than a threat could help
12 to enhance their personal resilience to stressors (viz. Bartholomew, Arnold, Hampson, & Fletcher,
13 2017; Wagstaff et al., 2018). One specific example of this type of training is provided by Fletcher
14 and Sarkar (2016) in their paper that describes mental fortitude trainingTM to develop resilience for
15 sustained success. This type of training program could be used to target the theme *Under the*
16 *Microscope* to aid physiotherapists in their decision-making processes under intense external
17 pressure.

18 The second level in the MMSI, *Interpersonal*, focuses on formal and informal social networks
19 and support systems within sporting organizations. An example of an intervention that could be used
20 to foster relationships between co-workers is to teach emotion-related abilities to effectively monitor
21 and manage other people's emotions (Wagstaff and Hanton, 2017). To illustrate, Wagstaff, Hanton,
22 and Fletcher (2013) conducted a study to improve the practice of individuals operating in a sports
23 organization by providing an intervention to develop emotion abilities and strategies. The
24 intervention included how to identify emotions externally in others and how to build and maintain
25 effective relationships. It was identified that the intervention improved perceptions of relationship
26 quality and closeness. This type of intervention could be used to target the theme Relationships are

1 Messy to reduce conflict in multidisciplinary teams Yet, bearing in mind the work of Howard Nixon
2 II (1992, 1993, 1994) that illustrates how interpersonal messages within an organization can
3 encourage overconformity to cultural norms, it might be important that support networks extend to
4 include physiotherapists from outside of sport. Indeed, it is important that physiotherapists do not
5 become enmeshed in a particular way of thinking, thereby insulating themselves from the values,
6 attitudes, and opinions from ‘outsiders’ (Nixon, 1992).

7 The third level of the MMSI, *Institutional*, is concerned with the sport itself, institutions and
8 organizations, physical environment, and psychosocial architecture. Considering the theme, *I am not*
9 *a Machine*; it might be that sporting organizations consider utilizing stressor reduction strategies (also
10 known as primary stress management interventions). That is, rather than solely training
11 physiotherapists to increase their resilience, sporting organizations could consider using stressor
12 reduction interventions to adapt the environment to reduce or eliminate stressors (Randall, Nielsen,
13 & Houdmont, 2018). An example of this type of intervention is job redesign where there are changes
14 to the content of work tasks (Parker, 2014). Changes include adjustments to the amount, type, and
15 intensity of cognitive, emotional, and physical workload, which include fixing issues with unsuitable
16 work equipment and providing more opportunities to use skills and make decisions (Bambra, Egan,
17 Thomas, Petticrew, & Whitehead, 2007; Montano, Hoven, & Siegrist, 2014). Organizational
18 psychologists have evaluated changes such as these and other environmental conditions and found
19 significant improvements in self-reported affect (e.g., satisfaction with the job), health, and in some
20 cases also performance (Holman & Axtell, 2016).

21 The fourth level of the MMSI, *Cultural*, reflects the media, cultural narratives, collective
22 norms, traditions and values. Considering the physiotherapists reported operating within a
23 performance-and-risk orientated climate (i.e., *This is Sport*), it is important to consider whether there
24 are alternative norms and values; that is, different ways of storying life in high performance contexts
25 (cf. Douglas & Carless, 2015). One prevalent finding in this study was the continual struggle between
26 being a sports physiotherapist and being a parent, which often led to physiotherapists leaving elite

1 sports environments. To better support physiotherapists, cultural sport psychology research illustrates
2 that sports organizations should facilitate discussions (e.g., one-to-one or group) around identity,
3 shared experiences of being a parent in elite sport, and the resultant implications for performance,
4 which in turn might challenge dominant cultural norms (McGannon, McMahon, & Gonsalves, 2018).

5 The final level, *Policy*, is concerned with local and national policies. To illustrate, the
6 Minister for Sport from the Department of Digital, Culture, Media and Sport in the United Kingdom
7 requested an independent report to Government by Baroness Grey-Thompson (2017) into the Duty
8 of Care in Sport. In the introduction it states, “The most important element in sport is the people
9 involved, whether they are taking part, volunteering, coaching or paid employees” (p. 4).
10 Recommendations were subsequently proposed, which provides a powerful illustration of how
11 policies can be proposed and framed at a national level, which could positively impact at a cultural,
12 organizational, interpersonal, and intrapersonal level.

13 **Future Research**

14 We provide several avenues for future research to extend this study. From a theoretical
15 perspective, future researchers could draw on Lazarus’s (1999) cognitive-motivational-relational
16 theory of stress and emotions to inform their research questions and expand understanding of
17 physiotherapists’ experiences of stressors. While stressors are a salient feature of physiotherapists’
18 lives, they only reflect one component of the stress process and say little about the evaluation
19 mechanism underlying the encounter. Lazarus’s theory is based around the notion of relational
20 meaning and the evaluative process of appraisal. Future researchers could therefore explore the
21 personal and situational factors that influence the appraisal process and the generation of emotions.
22 To account for this relational meaning, it is recommended that future researchers embrace qualitative
23 research, which would be well suited to provide nuanced insights into complex and dynamic person-
24 environmental transactions. One qualitative tradition that is well placed to capture and analyse
25 complexity is case studies (Stake, 2005). Furthermore, although there was considerable diversity in
26 our sample (e.g., gender, age, experience, employment status), the aim of the analysis was to identify

1 calls on the physiotherapist to be a responsible employee who must personally take care of his or her
2 health. This perspective ignores social responsibility. Indeed, not only do we need to make
3 physiotherapists more resilient to the stressors they encounter, but we also need to ensure that policies
4 and practices are put in place the support their health and well-being.

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