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Factors perceived to affect the wellbeing and mental health of coaches and practitioners  
working within elite sport

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27

**Abstract**

28 To date, limited research attention has been directed towards examining the wellbeing and  
29 mental health of the support team who work with elite athletes in the performance setting.  
30 Hence, using a pragmatic approach, this study explored the factors perceived to impact the  
31 wellbeing and mental health of coaches and sports science practitioners within a national  
32 sporting organization. Individual interviews and focus group discussions were completed with  
33 a sample of 11 participants, which included three male coaches, seven sport science  
34 practitioners (6 female and 1 male), and the male performance director. Data were analyzed  
35 using thematic analysis (Braun et al., 2016) and the factors perceived to influence participants'  
36 wellbeing and mental health were identified. Specifically, excessive workload, post-  
37 competitive loss, and a feeling of isolation were identified as the main risk factors, which held  
38 the potential to lower the coaches' and practitioners' wellbeing and diminish their mental  
39 health. While an effective organizational culture, transformational leadership, and access to  
40 quality social support were perceived as the key protective factors that could maintain or  
41 enhance their wellbeing and mental health. The findings of the study provide individual and  
42 organizational-level recommendations, which, using a social ecological framework, can be  
43 implemented to support the wellbeing and mental health of coaches and practitioners within  
44 the sport performance environment.

45

46 *Keywords:* High-performance sport, Mental health, Social ecological framework,  
47 Wellbeing.

48

49 **Factors perceived to affect the wellbeing and mental health of coaches and practitioners**  
50 **working within elite sport**

51 Wellbeing is a subjective, dynamic, and complex construct (Lundqvist, 2011) that has been  
52 conceptualized via two perspectives: namely, eudaimonic and hedonic. The eudaimonic  
53 approach portrays wellbeing as optimal *psychological* and *social* functioning, which comprises  
54 personal growth, purpose, self-acceptance, mastery, and social acceptance/belonging (Keyes,  
55 1998; Ryff, 1989). Whereas the hedonic perspective depicts wellbeing as *emotional*  
56 functioning, consisting of life satisfaction, positive affect, and the relative absence of negative  
57 affect (Diener, 1984). Although both perspectives of wellbeing are distinct, there is  
58 considerable overlap (Keyes et al., 2002; Keyes & Lopez, 2005), meaning that an individual's  
59 level of wellbeing is likely to be determined by psychological, social, and emotional  
60 components. As a result, it is prudent to take both perspectives into account when examining  
61 wellbeing (Lundqvist, 2011). Such conceptual complexity of wellbeing has led to the  
62 development of numerous definitions, though based on their theoretical and critical review of  
63 the literature, Dodge et al. (2012) proposed that wellbeing should be defined as, "the balance  
64 point between an individual's resource pool and the challenges faced" (p.230).

65 In terms of mental health, Keyes et al. (2002) describes it as a syndrome of positive  
66 symptoms and functioning, operationalized by measures of subjective well-being. Indeed, the  
67 World Health Organisation (WHO) define mental health as "a state of wellbeing in which the  
68 individual realizes his or her own abilities, can cope with the normal stress of life, can work  
69 productively and fruitfully, and is able to make a contribution to his or her community (2005,  
70 p. 2). Therefore, mental health is not merely the absence of mental ill-health (identified through  
71 standardized diagnostic criteria; American Psychiatry Association, 2013), but is a state of  
72 flourishing in which the individual experiences life satisfaction, positive emotions,  
73 meaning/purpose in life and rewarding interpersonal relationships (see Iasiello et al., 2020).  
74 Hence, mental health can be considered a state of psychological, social and emotional well-

75 being (Keyes & Lopez, 2005; Keyes et al., 2002), and individuals are less likely to develop  
76 mental ill-health if they are experiencing higher levels of wellbeing (Keyes et al., 2010).

77 The epidemiological evidence indicates that the prevalence of mental health, low  
78 wellbeing, and mental ill-health among elite athletes is similar to that of the general population  
79 (e.g., Gouttebarge et al., 2019). Though a number of factors unique to the elite sporting  
80 environment can increase athletes' vulnerability to poor mental health outcomes. That is, when  
81 athletes are subjected to an overload of training and competitive demands (Hughes & Leavey,  
82 2012), sporting failure (Hammond et al., 2013), injury (Gulliver et al., 2015), and retirement  
83 (Gouttebarge et al., 2015), they can become increasingly susceptible to lowered wellbeing and  
84 mental ill-health. However, athletes are not the only individuals to be affected by the demands  
85 of the performance sport setting.

86 It has been established that elite coaches are exposed to an extensive number of  
87 organizational and performance stressors, which if not managed effectively can lower their  
88 wellbeing and mental health (Norris et al., 2017). In particular, it has been found that a high  
89 frequency of organizational stressors (Wagstaff et al., 2018), job insecurity (Bentzen et al.,  
90 2020), excessive workload (Carson et al., 2019), and having their basic psychological needs  
91 thwarted within the working environment (Carson et al., 2019; Norris et al., 2017), can affect  
92 the wellbeing and mental health of coaches detrimentally. In addition, if a coach lacks  
93 psychological resilience (Wagstaff et al., 2018) and fails to engage with problem-focused  
94 coping strategies (Bentzen et al., 2017), they may become particularly vulnerable to poor  
95 mental health outcomes. Within their large-scale study of high-performance coaches, Bentzen  
96 et al. (2016) identified that almost a quarter were high in exhaustion, with elite female coaches  
97 seemingly particularly susceptible to lowered wellbeing and mental ill-health (see Carson et  
98 al., 2018). Critically, Gorczynski et al. (in press) recently found that some coaches have low  
99 levels mental health literacy (MHL), which can also contribute to poor mental health.

100 The wellbeing and mental health of coaches is an under researched area (Norris et al.,  
101 2017), though even less is known about the level of, and factors affecting, the wellbeing and  
102 mental health of sport science practitioners working within elite sport. It has been identified  
103 that physiotherapists working within the high-performance setting must cope effectively with  
104 a high workload, power-relationships, and the moral/ethical conflict they often experience  
105 within their role (Kerai et al., 2019). Similarly, sport psychologists appear to encounter multiple  
106 stressors that include factors intrinsic to sport psychology, interpersonal demands,  
107 organizational roles, career/development issues, and organizational climate of the profession  
108 (Cropley et al., 2016). Although not examined directly, it could be inferred from such studies,  
109 that the stressors hold the potential to lower the wellbeing and mental health of the practitioners  
110 (see Fletcher & Arnold, 2017). Certainly, in a more recent study of “the team behind the team,”  
111 Arnold et al. (2019) identified that sport science practitioners experience a number of stressors,  
112 categorized as: relationships and interpersonal issues; physical and resource issues; contractual  
113 and performance development issues; and organizational structure and logistical issues. All of  
114 which were perceived to lower the wellbeing of practitioners, if appraised negatively.

115 As such, it has been established that the support team within high-performance sport  
116 experience a broad range of organizational and competitive stressors that could have a  
117 detrimental effect. However, there remains a need to examine explicitly, the specific stressors  
118 and factors within this environment that are responsible for lowering the wellbeing and mental  
119 health of coaches, and (in particular) the sport science practitioners. Critically, to extend the  
120 current literature, which has focused predominantly on identifying factors that influence  
121 wellbeing and mental health negatively, there is also a need to ascertain factors which can  
122 *protect or enhance* the wellbeing and mental health of practitioners within performance sport.  
123 Together, this information can then be utilized to inform effective interventions which enable  
124 the athletes’ support team to not only minimize negative influences on their wellbeing, but  
125 actively elicit high levels of wellbeing and engender mental health. Accordingly, the aim of the

126 current study was to examine the factors perceived to negatively and positively impact the  
127 wellbeing and mental health of coaches and sport science practitioners working within an elite  
128 sport environment.

## 129 **Method**

### 130 **Research Philosophy**

131 The study was underpinned by a pragmatic philosophy (see Rorty, 1990, 1991), in which  
132 attempts were made to provide practical solutions to contemporary problems. Pragmatism  
133 denies a single reality, and instead advocates that knowledge is dependent on the context, its  
134 usefulness, and level of agreement among the community (Rorty, 1990). Thus, as noted by  
135 Giacobbi et al. (2005), pragmatism provides an expedient paradigm for applied sport  
136 psychology research, as it enables the co-construction of a ‘practical level of truth’ for the  
137 benefit of others. In terms of the current study, a pragmatic approach enabled a contextual  
138 exploration of factors perceived to impact the wellbeing and mental health of practitioners  
139 working within performance sport, for the purpose of providing meaningful applied  
140 recommendations which can support those individuals.

### 141 **Participants**

142 Eleven members of a support team (6 female and 5 male) who worked within a sporting  
143 National Governing Body (NGB) volunteered to take part in the study. This NGB was one of  
144 several, positioned within an overarching umbrella National sports organization<sup>1</sup>. Participants  
145 included three coaches (all male), a strength and conditioning coach (male), sport psychologist  
146 (female), performance analyst (female), nutritionist (female), physiotherapist (female),  
147 performance lifestyle advisor (female), performance liaison advisor (female), and the  
148 performance director (male). They worked full-time within performance sport, providing  
149 support for the male and female athletes who competed regularly at national or international  
150 events. In accordance with the talent classification system devised by Swann et al. (2015), they

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<sup>1</sup> To maintain confidentiality, details regarding the specific sport / NGB and national organization are restricted.

151 supported a group of athletes who were: i) *semi-elite* (i.e., within a talent-development  
152 program, and competing at a level just below the top standard); ii) *competitive* (i.e., competing  
153 at the highest level, but as yet, had not experienced success at that level); and/or iii) *successful-*  
154 *elite* (i.e., competing at the highest level, and had experienced some success at that standard).  
155 It should be noted that while the coaches, performance director, and performance analyst  
156 worked solely within (and were employed by) the NGB in question, the remaining sport science  
157 practitioners were employed by the umbrella national sporting organization and were assigned  
158 to work with this NGB (as well as others).

### 159 **Procedure**

160 Once ethical approval for the study had been obtained, the performance director of the  
161 NGB was contacted, and the aim of the study was explained. Thereafter, access to all coaches  
162 and sport science practitioners who worked within that NGB was sought and an information  
163 sheet detailing the study was disseminated. Subsequently, any member of the support team who  
164 wished to ask any questions and/or be involved with the study was encouraged to contact the  
165 research team directly. Of note, most practitioners from the NGB chose to take part in the study  
166 (i.e., two practitioners did not take part).

### 167 **Data Collection**

168 Data were collected via individual interviews and focus group discussions. First,  
169 individual interviews were conducted with three sport science practitioners (the strength and  
170 conditioning coach, sport psychologist, and performance lifestyle advisor) and the performance  
171 director. Semi-structured interviews were utilized to encourage individualized and detailed  
172 discussions (see Smith & Sparkes, 2016) regarding the participants' own wellbeing and mental  
173 health. Informed by the literature, and in particular the work of Dodge et al. (2012), the  
174 interview explored broadly: i) the demands that participants encountered within  
175 elite/performance sport; ii) the resources utilized (i.e., support accessed and coping responses)

176 to manage those demands effectively, and; iii) the perceived impact (positive and negative) of  
177 those demand and resources on their wellbeing and mental health.

178       Thereafter, two focus groups were completed. The first contained four sport science  
179 practitioners (i.e., the physiotherapist, nutritionist, performance liaison advisor, and  
180 performance analyst), and the second involved the three coaches. This method of data  
181 collection was adopted at the request of the participants, as they preferred to complete a group  
182 discussion. Hence, the focus groups were utilized to exchange views, and consider more  
183 generally: i) the demands placed on coaches and practitioners working within the high-  
184 performance setting, and the perceived impact (positive and negative) on their wellbeing and  
185 mental health; and ii) the resources available to those coaches and practitioners, which could  
186 be used to support their wellbeing and mental health. There was no expectation for the focus  
187 group participants to discuss sensitive information in this setting, though some (especially  
188 within the sport science practitioner focus group) willingly, and without prompting, disclosed  
189 personal details regarding their wellbeing and mental health. The focus group questions were  
190 also informed in part by the findings of the interviews, to ensure the methods were iterative.

191       Once all data had been analyzed, two additional brief individual interviews were  
192 completed with the sport psychologist and performance analyst to provide further contextual  
193 detail (see Ensuring Quality of Data section). Data were recorded digitally and transcribed  
194 *verbatim*, with the main interviews lasting on average 73 minutes ( $SD = 12.56$ ), and the focus  
195 groups taking 91 minutes (practitioners) and 71 minutes (coaches) respectively.

196       It is important to note that before data collection began, the constructs of wellbeing and  
197 mental health were described to the participants in layman's terms. Utilizing the work of Keyes  
198 and colleagues (Keyes et al., 2002, Keyes & Lopez 2005), it was noted that mental health  
199 constitutes high levels of wellbeing, and consists of positive emotions, a sense of life  
200 satisfaction, meaning/purpose in life, and rewarding interpersonal relationships. Whereas, it  
201 was explained that the opposite experience (i.e., negative emotions, low life satisfaction, and a

202 lack of meaning/purpose and interpersonal relationships) is characterized as low wellbeing,  
203 though is distinguished from mental ill-health (as identified through diagnostic criteria; APA,  
204 2013). Finally, it was highlighted that while the causes of mental ill-health are complex and  
205 multifaceted, sustained levels of low wellbeing can be a contributing factor. This protocol was  
206 adopted to encourage participants to distinguish as accurately as possible, their experiences of  
207 low and/or high wellbeing and mental health.

## 208 **Data Analysis**

209 Data were analyzed by the second author, via the flexible version of thematic analysis (see  
210 Braun et al., 2016), which offers a robust process for identifying and interpreting patterns  
211 within the data. As thematic analysis can be used to analyze data relating to participants'  
212 experiences, behaviors, and perspectives (Braun & Clarke, 2013), it was well-suited for the  
213 current study. The chosen approach to data-coding and theme development was completed  
214 through six phases, and was both inductive (data driven) and deductive (actively searching for  
215 factors perceived to affect wellbeing and mental health).

216 Initially, familiarization involved reading and re-reading the transcripts, while making  
217 notes on any data of interest. Thereafter, coding was completed, which involved identifying  
218 data that related to the research aims (i.e., factors perceived by the participants to affect their,  
219 and their colleagues' wellbeing and mental health) and assigning labels which described their  
220 content. Following this, themes were developed by clustering similar codes together, and  
221 providing a descriptive summary of each that resulted in an overview of broad patterns within  
222 the data. Based on participant data, those broad patterns were placed under the *in-vivo* terms of  
223 risk factors (i.e., perceived to lower wellbeing and/or mental health) or protective factors (i.e.,  
224 perceived to maintain or enhance wellbeing and/or mental health). During the revision phase,  
225 the codes and themes were re-visited to ensure they represented the data and addressed the  
226 research question. Through further analysis, the themes were organized in a hierarchical  
227 manner (i.e., themes and sub-themes), and a more detailed descriptive account of each theme

228 and sub-theme was produced, and then named (i.e., risk factors: excessive workload, post-  
229 competition loss, and a feeling of isolation; and protective factors: an effective organizational  
230 culture, transformational leadership, and access to quality social support). Finally, the explicit  
231 meaning of the theme and subthemes were considered, before the narrative was refined to offer  
232 a detailed account of the factors perceived to affect the wellbeing and mental health of the  
233 coaches and practitioners.

#### 234 **Ensuring Quality of Data**

235 The trustworthiness of data was addressed through the consideration of criteria relevant  
236 for this study (Levitt et al., 2016). Thus, to ensure credibility, participants completed lengthy  
237 interviews or focus group discussions, that explored in detail the factors perceived to impact  
238 the wellbeing and mental health of the support team within the performance sport setting. In  
239 addition, through self-reflection and critical discussions among the research team, key analytic  
240 decisions were challenged and reviewed during the research process, to achieve confirmability  
241 (Sparkes & Smith, 2014). Moreover, aligning with the requirements of a pragmatist  
242 methodology, the ‘usefulness’ of the study’s findings were also discussed with relevant  
243 stakeholders (Rorty, 1990). This occurred with three individuals who were not involved in the  
244 study, though had leadership roles within the umbrella national sporting organization and held  
245 a strategic oversight of the NGB. In a similar manner to member reflections (Smith, &  
246 McGannon, 2017), this process was used to consider whether there was a need to collect  
247 additional data to inform meaningful practical solutions, that could be utilized to protect or  
248 enhance further the wellbeing and mental health of the coaches and practitioners. It was deemed  
249 necessary to complete an additional two interviews (with the sport psychologist and  
250 performance analyst) to contextualize a small number of identified themes (see Data  
251 Collection). Finally, the findings of the study were presented in a manner which encouraged  
252 naturalistic or representational generalizability through the provision of an authentic narrative

253 that enables the reader to identify similarities and differences to which they are familiar (Smith,  
254 2018).

## 255 **Results**

256 The participants perceived a number of factors could affect the wellbeing and mental  
257 health of coaches and sport science practitioners working within their high-performance  
258 environment. *Excessive workload, post-competition loss, and a feeling of isolation* were  
259 identified as the main risk factors that could lower their wellbeing and mental health. While an  
260 *effective organizational culture, transformational leadership, and access to quality social*  
261 *support* were identified as key protective factors that could maintain or enhance their wellbeing  
262 and mental health.

### 263 **Risk Factors of Wellbeing and Mental Health**

#### 264 *Excessive Workload*

265 The workload associated with supporting athletes within this performance sport was  
266 acknowledged to be “considerable”. However, across the participants, the high workload was  
267 broadly perceived as “expected” and “manageable”, especially when the leadership team was  
268 proactively supportive of staff. Therefore, for much of the time, workload was not considered  
269 to impact wellbeing and mental health negatively. Nevertheless, certain factors (i.e., resource  
270 allocation, acute work demands, being new and inexperienced, constant availability, and major  
271 events/Games) were suggested to increase workload excessively, and thereby lower staff  
272 wellbeing and mental health.

273 **Resource Allocation.** Those responsible for providing psychological support to athletes  
274 felt particularly over-stretched at times, as they perceived more resources (financial and  
275 staffing) were directed towards those involved with the physical preparation of the athletes.  
276 This disparity appeared to be exacerbated by the organization’s increased focus on athlete  
277 wellbeing and mental health, which had expanded the workload for practitioners supporting  
278 this work. One of those practitioners explained:

279 We're being asked to deliver more and talk more about mental health. But there's no  
280 greater resource put into it...if you look at the resource put into supporting the physical  
281 health of athletes compared to the mental health, it's so skewed towards the physical.

282 Such perceived overload of demands was considered to impact the wellbeing of those staff at  
283 busy times, "...lesser resources has led to some staff feeling stretched. There's definitely the  
284 impact on wellbeing...We're being asked to deliver too much."

285 **Acute Work Demands (Injury and Screening).** When the athletes were injured, the  
286 subsequent increase in workload could be difficult to manage. For example, the physiotherapist  
287 explained how they had been affected by supporting an athlete with a concussion:

288 I didn't sleep that night. I text him probably four times...Those sorts of times, when I'm  
289 supposed to be off [work], I can't be. I can't switch off. So even though it wasn't a stressful  
290 time in terms of the [competition] cycle; just one injury changed it all for me.

291 Moreover, the psychological and physical screening process that occurs when the athlete enters  
292 the performance pathway, was reported as being: "a really tough time. The workload increases  
293 so much...Let's say ten new athletes come onto the programme and you as a practitioner have  
294 to screen them all...that creates too much work for you."

295 **New and Inexperienced Staff.** It was noted that at times, new/inexperienced staff were  
296 particularly vulnerable to the negative impact of a high workload, as they felt unable to decline  
297 work requests and were less able to manage multiple demands. As explained by one of the  
298 newly appointed members of staff: "I haven't had a weekend off for months. I'm being asked  
299 to attend training camps and competitions every weekend...As I've only just got the job, I  
300 don't feel I can turn round and say no I'm not doing that." Moreover, when reflecting on their  
301 first few months within the role, another (experienced) practitioner suggested they had felt the  
302 need to work harder than colleagues, and that as a result, their wellbeing had been affected:

303 When I got the job, I felt like I had to be at everything, had to be the first one in the office,  
304 and the last one to leave...I look back, and wonder what I was doing to myself! I was  
305 running myself into the ground. I was lucky to have got out of that.

306 **Constant Availability.** A number of the coaches and support staff suggested there were  
307 periods of time when they were constantly contactable by their athletes, and this had become  
308 highly damaging for their wellbeing and mental health. As one practitioner explained: “we’ve  
309 this culture where athletes message us whenever, and that leads to stress or pressure, or them  
310 imposing on your evenings or your home life. You can’t switch off and relax, which is no good  
311 for your [mental] health.” However, it was acknowledged that such accessibility was not a  
312 requirement of the support staff, or an expectation from the NGB leadership. Rather, the  
313 practice had developed among certain support staff, as a result of athlete demand.

314 **Major Events/Games.** Finally, preparation for, and attending key events and major  
315 Games were identified as “critical times”, when coaches and practitioners felt particularly  
316 overloaded, and often became vulnerable to lowered wellbeing. As summarised by one  
317 practitioner:

318 In the lead up to the major Games, that’s when it gets intense, hard for everyone. You’re  
319 working hard with the athletes...having to deal with those who are not selected. And then  
320 when you get there, you just don’t sleep as you are on alert the whole time...

321 This was reiterated by one of the coaches: “getting the [athletes] ready for the important  
322 [competitions], like Commonwealth....You’ve got to get everything right. It’s rough.” Another  
323 coach explained that the psychological impact of attending events was intensified by being  
324 away from home for an extended period of time, and no longer having the social support of  
325 family, “Australia [Commonwealth Games] was a difficult time for me. You don’t have a day  
326 off, even when it’s a scheduled day off. It was effectively six weeks away from home. That for  
327 me, was difficult...unsustainable.”

328 ***Post-Competition Loss***

329 The period immediately following important events was also noted as being very  
330 challenging by several participants and perceived to elicit lowered wellbeing and poor mental  
331 health in some cases. This was discussed further within the practitioner focus group:

332 Practitioner 1: Some find it difficult to come back from the Games...They can't switch off  
333 because it's been such a high. Like dropping off a cliff.

334 Practitioner 2: It was exactly the same for me. I remember coming back from one [Games],  
335 and I was back in work three days later. I was like 'I can't switch off...I was really bad.

336 Alongside the inability to switch off, the loss of purpose and social support appeared to affect  
337 wellbeing: "You lose purpose, excitement, and camaraderie. You've been part of this team,  
338 and you've all been working hard for the same goal over such a long period...then it's all  
339 over...For me, I felt lost. Yeah, I felt very low."

#### 340 *A feeling of Isolation*

341 Finally, new members of staff and those who worked alone, suggested they could feel  
342 isolated, which impacted their wellbeing and mental health negatively. This was the result of  
343 an inability to discuss professional and personal concerns with their peers on a daily basis, and  
344 less opportunity to socialize regularly with colleagues. As one practitioner shared:

345 There are less of us [discipline team] compared to say S and C [strength and conditioning].

346 They interact with different people. Whereas, I haven't got that chance. And few [staff]  
347 understand all the different demands that I am under, so I can't share that with anyone.

348 This led those practitioners to internalize worries, which in turn, impacted their wellbeing and  
349 mental health, "I've had a couple of instances when I haven't been able to speak to somebody  
350 about my concerns...It became too much of an internal worry and so it started to affect me and  
351 my ability to work." A similar finding was reported by a newer practitioner:

352 When I first moved here, I was away from my friends and family. I was always thinking  
353 about it [the job] in the evening, always on my emails. I enjoyed it, but then I would stress

354 a lot, and it had an impact [on wellbeing and mental health]...I worked mainly on my own,  
355 so I also didn't have that support during the day.

## 356 **Protective Factors of Wellbeing and Mental Health**

### 357 *Effective Organizational Culture*

358 Most participants perceived the organization's culture possessed core values that could  
359 collectively protect their wellbeing and facilitate mental health. Such values were associated  
360 with an organizational vision, sense of togetherness, and a challenging/supportive  
361 environment.

362 **Organizational Vision.** The participants noted there had been a recent shift in their  
363 organizational climate, instigated by a new vision ('integration, integrity, and innovation'). The  
364 vision was initiated by the umbrella national sporting organisation, though driven and  
365 reinforced by the leadership group within the NGB through formal and informal  
366 communications with staff (verbal and written). As a result, the underpinning values of the  
367 vision were becoming embedded among practitioners and coaches working within the NGB. It  
368 was proposed by several participants that working in a manner aligned with the vision were  
369 becoming the expected and rewarded behaviors within the organization. As explained by a  
370 practitioner:

371 There's a clear philosophy from the top with regards to [the vision]...those are our  
372 principles of working. We talk about it all the time, and we try in our team meetings to  
373 give examples of when we've seen integrity within our working environment, and what  
374 that looked like. So, we're trying to embed...those values.

375 Critically, and as explained by a practitioner, rather than being a "meaningless mission  
376 statement", the vision had affected staff behavior, their working experiences, and potentially,  
377 their wellbeing and mental health:

378 ...we don't have to throw those words [the vision] out at people, you can see people trying  
379 to do those things. It might not be comfortable at times, but it creates an enjoyable and  
380 safe working environment. That's good for your welfare...your mental health.

381 **Togetherness.** The participants considered their organizational culture promoted a sense  
382 of togetherness and belonging, which was reported by many (but not all) of the support staff  
383 interviewed, to be an important factor in the protection of their wellbeing and mental health:  
384 "I've got supportive colleagues who will always step up to the mark. Knowing that there's  
385 always people around, and it being such a good supportive department helps your [wellbeing  
386 and mental health]...because you offload stress." The coaches and practitioners met regularly  
387 (formally and informally) to work in an integrated multidisciplinary manner, which further  
388 facilitated togetherness across the wider support team: "We've [coaches and practitioners] a  
389 meeting every week. We talk about how the athletes are doing...making sure that we're  
390 delivering effectively. That coming together is also great for touching base and supporting each  
391 other on a more personal level."

392 Of importance, it was perceived that such togetherness had enabled some staff to recognize  
393 when colleagues were not themselves and offer support. A coach summarized this point:

394 You become aware when your colleagues are a bit off...You often see someone check in  
395 with a colleague and say, 'you're a bit quiet today, is everything alright'? That's  
396 reassuring. For me, that's the culture here. People looking after the people.

397 **A challenging/supportive environment.** Several participants suggested the working  
398 environment was purposefully challenging (to ensure professional and personal development)  
399 though also highly supportive:

400 ...we are stretched, but only enough so that we're pushed, but learning and enjoying it.  
401 There's also a safety net, which is important. So, if it goes wrong, it's okay, because...it's  
402 not always going to go right, as we have to push ourselves and others to get results.

403 As identified by another practitioner, this challenging but supportive environment was  
404 considered to influence wellbeing: “as we all get massive satisfaction and enjoyment from  
405 working within this unpredictable, challenging, but massively rewarding environment.”

#### 406 *Transformational Leadership*

407 It was reported that effective leadership had been responsible for instigating and  
408 developing the shift in organizational culture. Consequently, the leadership group (i.e.,  
409 performance director and those who provided strategic oversight of the NGB) was perceived  
410 to have impacted positively the coaches’ and practitioners’ working environment, and  
411 consequently their wellbeing and mental health. This had been achieved through their delivery  
412 of the aforementioned organizational vision, alongside establishing clear expectations, offering  
413 an approachable and flexible style, and valuing staff.

414 **Establishing clear expectations.** The performance director explained that the leadership  
415 group provided challenging but clear expectations for the staff: “For me, being a good leader  
416 is about having good conversations around setting expectations of their [staff] role. Knowing  
417 that you have to perform...are expected to perform. But these conversations help create  
418 clarity.” Such clear expectations were proposed to impact wellbeing and mental health through  
419 increasing individual’s sense of control. As explained by one of practitioners: “Yeah, that  
420 clarity, knowing what’s expected, knowing what I have to achieve, helps me create some order  
421 to my life...For me, that’s important for my mental state and wellbeing, especially when its  
422 busy.”

423 **Approachable and Flexible Leadership.** Several coaches and practitioners noted their  
424 leaders were demanding, though also approachable and flexible. This was particularly  
425 important for supporting wellbeing and mental health when critical life events occurred and/or  
426 when the workload became too high. For example, one of the coaches explained that their  
427 colleague received additional time after a family bereavement: “Even though the organisation

428 has a set amount of leave for a bereavement, there was flexibility, in that they [the leader] went  
429 with the person rather than following a policy.” Another practitioner noted:

430 I go to him [leader] just with pinch points...There’s a difference between stress and a bit  
431 of pressure. He gets it when the stress has become chronic for me, and I feel very open  
432 about going to him and saying look, I can’t cope with this. He gets it, he helps. And that  
433 makes such a difference to wellbeing.

434 **Appreciating/valuing staff.** Finally, it was reported that those in leadership roles, often  
435 demonstrated they valued the staff as individuals: “They really do want to develop all of us as  
436 practitioners, but the focus is also on the individual person in their development...obviously  
437 an important part of wellbeing.” As further explained by a practitioner:

438 I’ve regular ‘check ins’ with [leader]. It’s not just about my workload. It’s about how am  
439 I as a person, what’s going on in my life, am I busy, am I feeling okay, am I managing  
440 everything? Being valued like this can only be good for it [wellbeing and mental health].

#### 441 *Access to Quality Social Support*

442 Informal and formal support networks were perceived by the staff to be an important factor  
443 in the maintenance of their wellbeing and mental health.

444 **Informal social support.** The participants’ family and friends were a vital source of  
445 support, as they offered an opportunity to discuss work matters outside of the organization, “I  
446 have people to talk to at home...unopinionated, unjudgmental. I just need to voice it and get it  
447 off my chest at times. That helps maintain [wellbeing and mental health].” As further explained  
448 by one of the practitioners, “my husband has always been involved in sport, so there is support  
449 there, which makes it [the job] easier.” An important aspect of this informal support was an  
450 understanding of the flexible and irregular hours associated with working in elite sport:

451 I took a call at ten to six on Friday. It’s ‘mummy has to go and answer the phone now’.  
452 My husband is understanding and will look after the kids. It would be so much harder if  
453 you didn’t have that understanding...that’s massively important for my mental health.



480 transformational leadership, and access to quality social support were perceived as the main  
481 *protective factors* which held the potential to maintain or enhance the wellbeing and mental  
482 health of the coaches and practitioners.

### 483 **Risk Factors for Wellbeing and Mental Health**

484 Congruent with previous research (e.g., Bentzen et al., 2016), the current study identified  
485 that coaches and practitioners experience a considerable workload when supporting athletes  
486 within the performance/elite sport environment. While a high workload is known to lower  
487 wellbeing and increase mental health concerns (Carson et al., 2019), this was not always the  
488 case for a number of participants within the current study. This appeared to be the result of  
489 those coaches and practitioners perceiving their workload was expected, acceptable, and within  
490 their capability, which encouraged a degree of perceived control and efficacy. Consequently, it  
491 is likely that they appraised their workload as a challenge (rather than threat), which may have  
492 mitigated the negative impact on their wellbeing (see Arnold, et al., 2019; Norris et al., 2017).  
493 It is also likely that the supportive and flexible leadership style received by many of the coaches  
494 and practitioners also contributed to their ability to manage their workload and buffer its effect  
495 on wellbeing and mental health (e.g., Skakon et al., 2010).

496 Nevertheless, there were specific periods of the year and competitive cycle when the  
497 workload increased beyond routine levels (i.e., athlete injury, screening, and before/during  
498 major events), and where certain staff perceived an increasing susceptibility to lowered  
499 wellbeing. This is unsurprising as coping effectiveness often decreases when the volume of  
500 organizational demands increases beyond a critical point (e.g., Levy et al., 2009). New support  
501 staff, those who worked in isolation, and practitioners responsible for providing psychological  
502 support to athletes, appeared particularly vulnerable to the negative impact of the high  
503 workload. Specifically, new staff were reluctant to refuse additional work requests and were  
504 less able to manage the multiple demands of their role. Hence, wellbeing may have been  
505 affected by their relative workload being higher than their more experienced counterparts (see

506 Carson et al., 2019). Moreover, the new staff and those working in isolation had less access to  
507 social support, which is likely to have affected their ability to cope with their workload  
508 demands, and in turn, impact their wellbeing and mental health negatively (see Winnubst &  
509 Schabracq, 1996). Finally, practitioners responsible for the psychological preparation of the  
510 athletes, perceived their workload demands had increased due to their role in supporting the  
511 organization's increased prioritization of athlete wellbeing and mental health. Therefore, the  
512 perceived rise in vulnerability to lowered wellbeing during acute periods of the year, is an  
513 understandable outcome.

514 Of interest, despite the acute workload being removed post-Games, the wellbeing and  
515 mental health of certain support staff appeared to remain vulnerable at this point due to the loss  
516 of purpose and work-related support networks. A small body of literature has examined why  
517 athletes may experience low wellbeing post-Games (e.g., Howells, & Lucassen, 2018), though  
518 to our knowledge, the impact of this period on the support staff has not been examined  
519 empirically. As such, this study has identified the need for additional research in this area.

520 Accordingly, an understanding of the risk factors identified and explored within the current  
521 study (i.e., excessive workload, post-competition loss, and a feeling of isolation) can be utilized  
522 to support the wellbeing and in turn, the mental health of coaches and practitioners working  
523 within the elite/performance environment. Firstly, it is important for an NGB's leadership  
524 group to explore opportunities to reduce or redistribute the workload during critical periods for  
525 staff, particularly those who are new or less experienced. Then, with a current emphasis on  
526 sporting organizations prioritizing athlete wellbeing and mental health, it is essential that  
527 adequate resources are directed towards practitioners who offer the relevant expertise to  
528 implement this work. Otherwise, and as indicated within the current study, the paradoxical  
529 effect is that the wellbeing of those practitioners can be harmed. Finally, it would also be of  
530 value for NGB's to ensure that social support networks can be accessed by staff who work in  
531 isolation (e.g., Searle, & Tuckey, 2017). This could include facilitated peer-mentoring (internal

532 and external to the organization) that provides emotional support, and encourages  
533 conversations regarding efficient working practices (Jones, Harris et al., 2009).

534 Moreover, at the individual level, it may be advantageous for coaches and practitioners to  
535 explore strategies which facilitate a sense of control over their workload during the critical  
536 periods of the competitive cycle. By doing so, they are more likely to appraise the work-related  
537 demand as a challenge (Folkman & Lazarus, 1984), which can alleviate its negative impact on  
538 wellbeing (Jones & Fletcher, 2003). As an example, support staff could be encouraged to  
539 develop proactive coping strategies (e.g., preparation and planning; Levy et al., 2009), utilize  
540 Rational Emotive Behavioral Therapy (REBT; Bernard, 2019), or employ mindfulness  
541 exercises (see Henriksen et al., 2020), which have been shown to encourage perceived control  
542 and challenge appraisals of acute stressors. Furthermore, support staff may wish to consider  
543 job crafting, which, informed by the Job Demands-Resources (JD-R) model (Bakker &  
544 Demerouti, 2007), involves the modification of their role to meet their psychological needs  
545 (Berg et al., 2013). This entails reframing work tasks in a manner that matches employee's own  
546 skills and preferences, requires the development of new skills, encourages interpersonal  
547 relationships, and makes those tasks more meaningful (Tims et al., 2013). Job crafting has also  
548 been shown to increase individual's' perceived resources to maintain wellbeing and mental  
549 health when exposed to a high workload (see Tims et al., 2013). Finally, support staff should  
550 consider accessing psychological support post-Games, to ensure a healthy transition into their  
551 normal working routine.

## 552 **Protective Factors of Wellbeing and Mental Health**

553 All participants within the current study identified that effective organizational culture,  
554 transformational leadership, and access to quality social support networks were the key factors  
555 that protected or enhanced their wellbeing and mental health when completing their role.  
556 Consequently, and in agreement with Arnold et al. (2019), it is evident that many support staff  
557 within this particular highly demanding performance environment, perceived they experienced

558 high levels of wellbeing and mental health, when their organizational climate engendered  
559 necessary supportive properties. In this case, such supportive properties included an  
560 organizational culture that encompassed a collective vision, a sense of togetherness, and the  
561 provision of a challenge/supportive environment.

562 An organizational vision can lead to positive outcomes for the organization and its staff, if  
563 it becomes more than a slogan through employees accepting it is relevant and meaningful  
564 (Griffin et al., 2010; Kirkpatrick, 2016). It is evident that most participants in the current study  
565 had 'bought into' the vision and were being influenced positively by it. This internalization  
566 process occurred through extensive communication of the values underpinning the vision  
567 across the organization, and the reinforcement of behaviors that reflected those values (i.e.,  
568 integration, integrity and innovation). Congruent with the results of this study, there is evidence  
569 elsewhere in the literature to suggest that if a vision is aspirational, aligns with the values of  
570 the workforce, and is collectively accepted, it can have a distal influence on wellbeing through  
571 increasing perceived resources (Albrecht, 2010). Indeed, it is important to note that at the core  
572 of any effective and sustainable high-performance environment, is a vision that is articulated  
573 by leaders and sought by staff (Jones, Gittins et al., 2009).

574 A sense of togetherness was perceived by the coaches and practitioners as an important  
575 aspect of the organizational culture, which protected their wellbeing and mental health. By  
576 satisfying the psychological need for belonging, and facilitating social support across the  
577 group, their wellbeing and mental health was maintained (Ryan, 2009). As such, to enhance  
578 the wellbeing and mental health of support staff within high-performance sport, it is essential  
579 for togetherness to be cultivated through strategies such as team building, team goals, and team  
580 norms (Cotterill, 2012), with particular attention paid to how this can be facilitated for new  
581 staff and those who work alone. Such togetherness also appeared to increase levels of  
582 awareness regarding others' wellbeing and mental health, and a willingness to offer emotional  
583 support. Thus, being a cohesive group seemed to have engendered MHL which can also impact

584 staff wellbeing and mental health positively (Jorm et al., 2006). Indeed, to support the  
585 collective wellbeing and mental health of the workforce, coaches and practitioners within elite  
586 sport may benefit from completing MHL training (Gorczyński et al., in press).

587       The support staff within the current study considered their working environment to be both  
588 challenging and supportive. Therefore, and as found previously (see Sarkar & Fletcher, 2017),  
589 such an environment can protect individuals' wellbeing and mental health by fostering  
590 psychological resilience. Indeed, this finding reinforces the importance of developing  
591 resilience among practitioners (Wagstaff et al., 2018), through an organizational climate that  
592 both challenges the staff via high expectations, developmental feedback, accountability, and  
593 responsibility, while also providing necessary support through motivational feedback,  
594 encouraging sensible risk-taking, using mistakes as a learning opportunity, and offering  
595 emotional support (Fletcher & Sarkar, 2016).

596       The actions of the organization's leaders were noted as an important protective factor of  
597 the coaches' and practitioners' wellbeing and mental health. Specifically, the leaders provided  
598 and reinforced a shared organizational vision that promoted co-operation and innovation;  
599 showed individualized support, consideration, and flexibility towards staff; while also  
600 demanding clear and challenging expectations of the team. All of which are transformational  
601 leadership behaviors and associated with increased occupational self-efficacy, motivation, role  
602 clarity, empowerment, psychosocial resources, and employee wellbeing (see Arnold, 2017).  
603 Therefore, the challenge for all leaders within the performance sport setting is to demonstrate  
604 such transformational behaviors throughout the competitive cycle, and across the staffing base.

605       Finally, access to quality social support was identified as a key determinant of wellbeing  
606 and mental health among the coaches and practitioners within this study. That is, access to  
607 formal and informal support networks protected the individual from the demands of working  
608 within a highly pressurized environment. It has been established that social support can provide  
609 both psychological and material resources to individuals, thereby improving their problem-

610 solving behaviors, and increasing self-efficacy, positive emotions, and perceived control.  
611 Consequently, the ability to cope with stressors encountered, and maintain/enhance wellbeing  
612 and mental health is improved (see Cohen, 2004). Thus, all support staff within  
613 elite/performance sport should benefit from having access to informational and emotional  
614 social support via different sources, that could include mentoring and supervision. Given the  
615 potential detrimental effects of being a new member of staff and working in isolation,  
616 maximizing opportunities to develop support networks for those staff, is particularly important  
617 (see Jones, Harris et al., 2009).

### 618 **Summary and Applied Implications**

619 This study extends the literature by exploring the specific factors perceived to affect  
620 positively and negatively, the wellbeing and mental health of both coaches and sport science  
621 practitioners. The findings point to a number of take-home messages that can be used by NGB's  
622 to inform their organizational climate and working practices. First, there is a need for the  
623 leadership group to remain mindful of the acute rise in workload for coaches and practitioners  
624 during certain periods of the competitive cycle. Hence, to enhance wellbeing and protect  
625 mental health at those times, additional resources and support may be required, especially for  
626 new staff and those who work in isolation. Second, the wellbeing and mental health of support  
627 staff may also be facilitated by the provision of transformational leadership behaviors that  
628 engender an aspirational vision, a challenging and supportive environment, and a sense of  
629 belonging. Third, due to a need to prioritize and support athlete wellbeing and mental health,  
630 it may be of value to reflect on the resources available (e.g., staffing/financial) for those  
631 responsible for delivering this work. Fourth, it is likely to be advantageous for practitioners  
632 and coaches to learn and employ strategies which increase their perceived control and efficacy  
633 over their workload. Fifth, it appears beneficial to encourage all support staff to receive MHL  
634 training. Finally, there appears to be a need for the provision of psychological support for  
635 coaches and practitioners returning from major events.

636 It is evident therefore, that to support the wellbeing and mental health of coaches and  
637 practitioners within the high-performance sport environment, it is necessary to adopt an  
638 ecological systems approach (see Purcell et al., 2019). That is, an effective intervention must  
639 address the individual-level factors (i.e., develop the coaches' and practitioner's coping skills);  
640 the micro-level factors (i.e., a social support network of peers, mentors and family); and the  
641 organizational-level factors (i.e., transformational leadership, vision and values) affecting  
642 wellbeing and mental health.

### 643 **Limitations and Future Research**

644 It is important to note that the conclusions reached, and applied implications offered, have  
645 emerged from one sporting organization. Moreover, few demographic and cultural differences  
646 among the group were evident or raised (religiosity, ethnicity, sexuality etc.). Therefore, it is  
647 necessary for future research to examine factors that affect the wellbeing and mental health of  
648 a larger number of support staff, across differing sports, and within a culturally heterogenous  
649 sample. In addition, the three coaches who took part in the study (i.e., within the focus group),  
650 did not complete individual interviews at their request. As it is possible that the group setting  
651 prevented the discussion of detailed and sensitive information, there remains a need for future  
652 studies to explore further, the personal experiences relating to coach wellbeing and mental  
653 health within elite sport.

654 The data collected were also based on the participants' subjective recall, and so a  
655 longitudinal, mixed methods research design would be of benefit for future research. This  
656 approach could ascertain objective levels of wellbeing and mental health through a competitive  
657 cycle, and establish a clearer association between stressors, coping resources, and wellbeing or  
658 mental health. Furthermore, although the practitioners within the study worked full-time within  
659 elite sport, they also supported athletes outside of the NGB examined within this study.  
660 Therefore, while the participants were encouraged to discuss their experiences within the one  
661 sport, it is possible that their perception of risk and protective factors were influenced by the

662 organizational climate outside this sport in question. Finally, while most findings related to  
663 both coaches and practitioners, a small number were relevant to specific practitioner roles (i.e.,  
664 physiotherapist and those who provided psychological support to athletes). It would be  
665 advantageous therefore, for researchers to explore in more comparative detail, any nuanced  
666 differences in the factors affecting the wellbeing and mental health of practitioners across  
667 disciplines/roles.

668       Nevertheless, the findings of the study remain salient, as the perceptions of the  
669 information-rich participants have provided a detailed, much-needed, and resonating insight  
670 into the factors perceived to affect the wellbeing and mental health of coaches and practitioners  
671 working within elite sport. In addition, those insights can be utilized to inform applied  
672 recommendation that can support the wellbeing and mental health of those working within the  
673 high-performance sport environment.

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